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The Need for Professionalism in Teacher Education

Journal of Interpersonal Violence

Some Reflections on World Declaration on Higher Education for the 21st Century —Vision and Action

1. *Chlorophyll a* and *Chlorophyll b* were determined by the method of Arar and Collins (1971) using a Shimadzu 1601 UV-Visible Spectrophotometer.

Active Learning in Management Education — A Practical Approach

[illegible]

Impact of E-Commerce and Internet on Accounting Education, Practice and Research

1. The first part of the paper is devoted to the study of the asymptotic behavior of the solutions of the system (1) as $t \rightarrow \infty$. It is shown that the solutions of the system (1) tend to zero as $t \rightarrow \infty$ if and only if the matrix A is stable.

Libraries by the Year 2020 A.D.

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Sustaining University Research — Convocation Address



Association of Indian Universities



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Hyderabad
Dt. 29.11.1999

P. Murali Krishna
OFFICER ON SPECIAL DUTY

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SUTINDER SINGH

The Need for Professionalism in Teacher Education

Noorjahaan N. Ganihar*
Shobha S. Nilavar**

Teacher Education : Changing Role of Teacher in India

At the inaugural function of the Education Commission in 1964, the Union Minister of Education pointed out — "Education system must inspire people to improve their life. It must develop not only efficient minds but also character equal to the demands of leadership in democracy." With education playing an increasingly significant role in the development of our society it is imperative that children be taught by adequately prepared teachers. Student training at the primary, secondary or higher education level is the responsibility of the teacher who himself must adequately be qualified and trained to shoulder the task. The task of educational reconstruction in which we are engaged in India today can be successfully accomplished only if we strengthen our teacher education.

It is also fortunate that recognition is growing stronger that the system of teacher education must be refashioned to meet the needs of our schools and colleges in the new social and economic context in which they are functioning.

It is however, to be admitted that the earnest efforts which till now, have gone into the reconstruction of the educational system in India have not included any effective measure for the reorganisation and revitalisation of teacher education. It is perhaps the weakest link in the educational structure of our country. It has to be regarded as a necessary routine and a qualification prerequisite for confirmation in the professional service. The scope of training imparted is formal and uninspired by a sense of purpose.

The main objectives of teacher education in India are to help teacher trainees to acquire knowledge and skills in the use of the best methods and means of teaching, to help them to take an intelligent interest and to acquire academic depth in their respective subjects, and to cultivate a sense of professional responsibility in them.

As pointed out in National Policy on Education (1986) "Teachers have to play a pivotal role in reforming education at all levels. In order that they play this role they should be inspired by creative idealism and take pride in their profession."

Is Teaching a Profession?

Teaching is currently at a transitional stage and is experiencing a serious occupational identity crises. Teachers themselves are uncertain as to the nature of their own occupation. They are unclear as to which category they belong — trades persons, semi-professionals or professionals. If teachers do not know who they are, they are unsure of what demands others can legitimately make on them (e.g. parents) what de-

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mands they can legitimately make on others (e.g. Government) and most important of all, they are unsure of what demands they should make on themselves.

Teacher educators as a world-wide group also seem to lack clarity on the professional identity of teaching and the nature of teacher education whether at the pre-service or inservice level.

Teacher preparation should operate within a clearly thought out framework which reflects the professional nature of the enterprise.

One must proceed with caution, therefore in an attempt to clarify the notion of 'professionalism' and in trying to identify some traits which are common to teaching and other professions.

What is it that sets a profession apart from occupation? The traditional sociological approach to the study of professions has been to identify the characteristics which are held to distinguish professions from other occupations, as well as to use these collectively as a model to assess the degree to which various occupations approximate to professions. Medicine invariably heads the list, usually followed by law. Other occupations generally accorded professional status include the clergy, architecture, dentistry, university teaching and engineering.

Commonly Accepted Components of a Profession

Some of the commonly accepted components are :

1. An organized body of theoretical knowledge constantly expanded by research on which practitioner skills are based.
2. A lengthy period of training to acquire knowledge and skills.
3. A concern for the client welfare.
4. A broad range of autonomy for both the individual practitioner and the occupational group as a whole.
5. A series of standards and a statement of ethics which is enforced.

The "ideal professions" to "mere occupations" is a relative continuum where the ideal professions satisfy most of the criteria and the mere occupations satisfy only a few of the lot.

When teaching is matched against these criteria it fulfils the criteria to some degree but to a lesser

extent, when compared to medicine, law, architecture, therefore falling into the category of "quasi or semi-professional."

1. *Teaching as an Organised Body of Theoretical Knowledge*

A profession rests on theoretical basis. By theory one generally means a set of assumptions upon which are deduced hypothesis which in turn can be tested. It is through this process that a body of verified knowledge is established. Practice can then be compared with knowledge where upon it receives a degree of legitimacy.

At present, teaching is by definition a craft. Most, if not, all teachers perform according to their customary procedures and occasionally try something new.

It is possible for teaching to become a profession provided the necessary knowledge base it built. A beginning has been made in that a number of recent researchers have contributed valuable knowledge to teacher education. Clearly research in the past ten years indicates that given sufficient support, a knowledge base can be established which will give full professional standing to teaching.

2. *Training to Acquire Knowledge and Skills*

The academic qualifications of teachers are everywhere considerably higher than most occupations in which they might be compared. But they are lower than the academic qualifications required for entry to the major professions. Although the average length of the course of professional preparation for teachers has been steadily increasing in most countries, it has traditionally been of shortest duration than courses for the preparation of doctors and lawyers. The school level academic achievement of entrants to teacher education have been lower than those required by most other professions. For many students entry to courses of teacher education has been their only means of gaining entry to an institution of higher education. Specialist degrees in education are generally accorded lower status than degrees in arts or science subjects with teachers having such degrees, subsequently undergoing a period of teacher education having a higher professional status.

3. *A Concern for the Client Welfare*

The teacher's relationship with clients differs from that of the doctor or the lawyer. The teacher has a sustained relationship on a daily, weekly or

yearly basis. They are normally taught in quite large groups and are not in the one to one relationship of the doctor's or the lawyer's client.

This different form of direct relationship takes from teaching much of the mystique which still attaches to other professions. With the disappearance of the teacher's gown, the raised dais and various rituals, the classroom lacks the aura of the operating theatre or even the consulting room of the doctor or the lawyer.

Professionals incur a special obligation towards their clients. The professional must do whatever will best serve the clients' interest and welfare, using standards of practice that are based on the application of specialised knowledge to the unique circumstances of the client.

Teaching is the only profession in which there is so little concern for clients that we are willing to give new practitioners the most difficult and burdensome assignment, leave them without teaching materials, close the door and tell them to sink or swim on their own.

4. Teacher Autonomy

Professionals enjoy substantial freedom to practice their skills based on complex knowledge, within guidelines established by their profession and without interference by the general public. They accept responsibility for standards of professional performance throughout their career.

According to Farber (1984) an essential attribute of professional role is autonomy and self-control regarding the development and application of the body of generalised knowledge in which the professionals alone are experts.

The professionals must have autonomy from administrative control in determining occupational tasks and functions, and do whatever will best serve the clients' interest and welfare, using standards of practice that are based on the application of specialised knowledge to the unique circumstances of the clients.

Staff participation in decision making may be a decisive factor in obtaining the cooperation of professional staff. The professionals not only claim the right to make decisions in their specialised field but also expect their view to be considered in a wide range of matters which affect their work and status. Their desire to participate in wider system decisions may be regarded as an extension of their expectation to exercise independent judgement in their professional activities. Though some

teachers are highly motivated professionally, studies in several countries suggest that not all teachers have the professional orientation which results in demand for participation in decision making.

An important facet of teacher education system is the autonomy granted to or perhaps demanded by the teacher as a professional to make discretionary judgment about procedures to be used during the time a student group is in charge.

Teachers experience a lack of participation — especially with such issues as curriculum, grading policy and reporting procedure.

5. A Series of Standards and a Code of Ethics

Code of ethics indicate how members of a profession should behave. Sets of standards specify guidelines for the tools and the facilities used by people in the profession. Merely stating standards and publishing code of ethics do not guarantee anything — professionalism requires that the standards and the code of ethics be universally followed. Many organisations within the education profession have developed code of ethics. One of the primary functions of the code of ethics should be to promote professional growth and understanding which is lacking in the teaching profession. The issue of professional values and ethics has to be pursued vigorously. A strong association is needed to achieve vigorous enforcement of standards and ethics.

Professionalising Teaching

Professionalisation is the process by which an occupation succeeds over time in meeting the criteria of a profession. This is usually treated as a unitary process, but it has been argued by Hoyle (1974) that two processes are involved. These are professionalisation of the improvement of status and professionalisation as professional development or the improvement of professionalism of the knowledge and skills involved in professional practice.

Ongoing efforts to promote professional development indicate that interest in enhancing teacher professionalism persists. Two areas of research (Firestone, 1996) contribute to thinking about the teaching profession. Cognitive literature elucidates the knowledge and thought processes of teachers, whereas the organisational research stresses the importance of commitment. It is necessary to assure that professionals have both the requisite knowledge and appropriate values.

1. *Professional Knowledge*

Shulman (1987) provides one of the most inclusive typologies of teacher knowledge. It includes content knowledge, general pedagogical knowledge including principles of classroom management, curriculum knowledge of the materials and programmes with which teachers work, pedagogical content knowledge, knowledge of learners and their characteristics and knowledge of educational ends and values.

The ability of knowledgeable teachers to promote higher order thinking is crucial to the argument for professionalising teaching. A literate, inventive and socially responsive work force will be necessary for our country to hold its own in the future. If more knowledgeable teachers contribute significantly to that end, the public may be more likely to accept the professionalism of teaching.

2. *Professional Commitment*

Commitment is more closely tied to aspects of teachers' work that are under their control. For instance, the attendance of committed teachers is higher than that of their less committed colleagues. Burned out teachers tend to be less sympathetic towards students, have a lower tolerance for frustration in the classroom, and feel exhausted and anxious.

A number of proposals to reorganise teaching have been made over the last decade. Most attempt is to increase participation in educational decision making, their collegial interaction or both. There are good reasons to believe that these kinds of changes will improve teachers' commitment to their profession.

3. *Autonomy and Decision Making*

The traditional distribution of influence in institutions give teachers substantial autonomy in the classroom but limited input to decisions made at the institution or district level. The image of a profession as a self-regulating body of experts suggests that giving teachers more influence will substantially improve the quality of education. Proposed changes give teachers more influence over out of class decisions affecting such issues as curriculum, budget and personnel. When the decisions are not monopolised by the Principal but made by a committee including the Principal, teachers and students and/or parents and when the authority of teachers within such a committee is high, teachers become more empowered. Empirically, teachers experience a lack of participation — especially with such issues as curricu-

lum, grading policies and reporting procedures which often lead to reduced commitment.

Participation can contribute to commitment in a number of ways. When teachers have a genuine influence over a decision, their sense of autonomy increases and they are likely to take more responsibility for that decision.

4. *Collegiality and Interaction*

Today the focus of attention is to increase interaction and collegiality among teachers. Earlier the teacher educators spent more time talking to students than to colleagues, occupational norms reinforced organisationally enforced privacy. Whatever talk goes on among teachers tends to be social rather than discussion of the craft of teaching. This isolation limits professional group control, colleagues cannot monitor and enforce standards when they do not know what others are doing. In addition it is difficult to develop a common professional language, or conceptual base without sharing (Darling, 1989). It has been argued that collegial interaction among teachers around issues of teaching should make teachers more knowledgeable and effective. It helps teachers better understand what is expected of them and how to accomplish it. At least, through informal advice giving and sharing, collegiality is directly related to both teacher commitment and student learning. Where teachers get feedback from their peers about their competence, they become more committed to their work (Newmann, Rutter and Smith 1989; Rosenholtz, 1989; Shulman, 1989).

5. *Salary*

Salary is intimately related to professionalisation. One reason teachers want to become professionals is to get their salaries increased. Salaries also help the field retain the knowledgeable people needed to professionalise it. Low salaries are an important reason why teachers leave the occupation, and higher salaries contribute to the retention of the more academically talented teachers needed to implement new instructional strategies.

6. *Researches, Innovations and Studies*

One of the major drawbacks suffered by teacher education system is the lack of inflow and utilisation of researches and innovations in the system, especially in situations where teachers in colleges are hardly encouraged to conduct researches or to participate in innovative efforts. Gradually, it is being felt that in the present context it would be essential to establish a mechanism for dissemination of re-

search outcomes to the teachers and teacher training institutions and to ensure their utilisation in the transactional strategies. Simultaneously, teachers shall have to be encouraged to undertake action research, developmental projects and participate in other types of researches, studies and innovations. The application of new technologies, potentialities of any particular approach, utility of new materials, new evaluation techniques, possibilities of remedial transactional curriculum on competency based approach and several such issues need result on a larger and wider scale than what is being done at present in India.

Conclusion

The NPE 1986, called for an overhaul of the Teacher Education System in the country. It emphasised the need for continuing education for teachers to meet the thrusts envisaged in the policy. A new centrally sponsored scheme of restructuring and reorganisation of Teacher Education was launched by establishing DIETs to provide pre-service and in-service training to elementary school teachers. Upgradation of Secondary Teacher Education Institutions into Colleges of Teacher Education (CTEs), Institutes of Advanced Studies in Education (IASes), strengthening of SCERTs and University Departments of Education through the University Grants Commission are some of the Programmes of Action that have been implemented for providing training and resource support to elementary and secondary teacher education.

As long as uncertainty to the nature of teaching continues it will be damaging to the teacher. Such confusion is also an obstacle to moves that might be made towards the empowerment of teachers. The urgency of the matter is highlighted by the strong move in several countries including England, towards the deprofessionalisation of teachers (Burke, 1997). In England, according to Burke (1997), Government policies over a five year period have served to reconstruct the teacher as the doer not the thinker, the manager not the scholar, the technician not the intellectual and have charged teacher educators to deliver competency driven, school based teacher training thus running the risk of losing sight of the complexity of both teacher education and teaching, and teaching processes and disempowering the teacher in the practice.

To enjoy the same social status and prestige as all those who eminently serve society, today's or tomorrow's teacher must be professional, whose educational programme and level should be more

and more comparable with the physician's education.

But the education of teachers in our country has yet to develop the main attributes of a profession such as systematic theory, training authority, ethical code and culture, generating knowledge through research and specialisation.

It is our earnest desire and hope that soon with the NCTE at the helm of affairs teacher education in our country will rise up to the status of extended profession that it really is.

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Some Reflections on World Declaration on Higher Education for the 21st Century

Vision and Action

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Indira Dhull**

The present document, "World Declaration on Higher Education" issued by UNESCO has two distinct parts. In the first part, the UNESCO has envisioned higher education in terms of the roles and functions that it should play in socio-cultural and economic development of nations "as a fundamental pillar of human rights, democracy, sustainable development and peace." In the second part, recommendations are made for concrete and specific steps (priority actions) that need to be taken at national and international levels for change and development of higher education, to enable it to realize the missions and functions set for it, and to overall enhance its quality and relevance.

These recommendations are the result of world conference on higher education held at Paris from 5 to 9 October, 1998. The basic faith under-pinning the present recommendations is that "the solutions of the problems faced on the eve of 21st century will be determined by the vision of the future society and by the role that is assigned to education in general and to higher education in particular."

My comments on recommendations made in this document relate specifically to status of higher education in India, the maladies it suffers from as well as the priority actions immediately required to be taken in Indian context.

The Social Malaise of Indian Society — The Value Crisis

Kireet Joshi (1995) aptly remarks' "Humanity today stands at a critical juncture. Hope and despair, pride and pessimism, comforts and confusion fill human hearts in unequal and unstable measure. Whereas the peaks of material progress scaled by some countries, enthrall humanity as a whole, the depth of social degeneration in most parts of the world make thinking people wonder if mankind can receive the light of recovery at all."

The Upanishads taught us the ideal of *Vasudhaiv Kutumbakam* — that is the entire world is my family, yet today we fight among ourselves in the name of religion, region, language or caste. The mosques, the temples or other religious structures are sought to be made more significant than the grinding poverty of Indian people, abysmal standards of nutrition, social injustice etc. Jain and Patanjali taught us the Ideal of *Aparigraha* (non-hoarding) but we use our power and authority for hoarding wealth by exploiting our helpless fellow-men. We advocate rationality as a guiding principle to be followed in private and public life but in our inner psyche we are still guided by blind rituals, superstitions, orthodoxy and egotism. Today, education and more especially higher education has received a serious setbacks and lost its relevance and meaningfulness. Higher education in India, owing to a variety of reasons, is beset with problems and challenges which require immediate attention to solve them failing which, it may be a sheer waste of national resources, nay, a positive danger to the worlds' greatest democracy. Since independence and even before, a number of commissions and committees and policy documents on higher education in India recommended many desirable changes in structure, functions and actions, yet in reality, instead of showing any signs of improvement, it is constantly deteriorating in terms of its quality and relevance. The universities and some other institutions of higher education are becoming bastions of politics. In certain cases these institutions have been converted into defacto employment bureaus to oblige politicians, bureaucrats and other influential people. In matter of selection or admission often there is an utter neglect of merit or individual capacity and deservedness. The autonomous character assigned to these institutions is callously being misused to serve their expediency rather than a policy. In the name of autonomy a self-willed, irresponsible and non-accountable behaviour is observable in many cases. Similarly, in research especially in humanities and social sciences (ex-post facto research), either there is plagiarism or data are cooked and generalizations drawn as desired. We all are mute spectators

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to the scene but not able to effectively deal with the situation.

In keeping with such a socio-political backdrop, we are giving our comments on some special issues, which need reflection and action by all the stakeholders of higher education in order that higher education and research are able to act as essential components of sustainable development and peace for individuals, communities and nations. We are fully convinced that many of the priority actions recommended in the document may be eye opener for our political elites and educationists in making clear the meaning and relevance of higher education and its contribution in the development of nation.

Specific Comments

Issue of Training Versus Education in Values

Nevertheless, before we proceed to highlight the special significance of the provisions contained in the document and which seem to have serious implications in higher education in India, We would like to gloss over the term "training" as used in Article 1(e) where its conceptual cleavage with the term "education" is clearly discernible. In this Article which relates to development of societal and democratic values, the use of the word "training" does not seem appropriate in view of connotative nuances existing between the concepts training and education. The said Article states that for higher education to be able to contribute to sustainable development and improvement of society as whole, it should "help protect and enhance societal values by training young people in values which form the basis of democratic citizenship—."

Training, however, is a term used in contexts where goal is to develop skills, habits etc which go to increase the dexterity of any organism, including animals. It is facilitated by reinforcement of desired responses which may often lead to indoctrination. Indoctrination, as we know, is by its very nature anti-educational, because in this process the ability to think on one's own gets stultified.

Education, on the other hand is understood as an initiation into worthwhileness (Peters, 1977), where the individual develops the capacity to think and, to decide on one's own. That is to say, education essentially involves development of autonomy. A truly educated man is an autonomous individual who sizes up the situation, makes one's own free decision and actions, and at the same time feels the responsibility for what one decides and does.

Regarding values, it is a truism that if they are not freely chosen and acted upon they cease to have any meaning, for in that situation one cannot be held responsible for what one does. Education in values as distinct from training in values, involves the development of knowledge, understanding and critical awareness. An educated man is one who does not act in accordance with some desired response but rather sees the desirability" of it before acting accordingly. Hence instead of "training" young people in values we should "educate" them in these.

All other Articles of this document, however, are very well conceived, and in reality, are indispensable for higher education as a worthwhile academic pursuit for ensuring a nation's sustainable development, democracy and peace.

Yet, in the analysis that follows an attempt has been made to reflect upon and analyze the status and system of higher education in India vis-a-vis the recommendations of this document giving at places my personal opinion to bridge the gap between what is and what ought to be.

Question of Equity vis-a-vis Reservation Policy

The issue of "equity" and 'access' as defined in Article 3(a) is in consonance with Article 26.1 of the Universal Declaration of Human Rights. It is a burning question in Indian context. According to it "Higher Education should be based on merit, capacity, effort, preservice and devotion—. No discrimination can be accepted in granting access to higher education on grounds of race, gender, language or religion or economic cultural and social distinction."

If we examine this Article, vis-a-vis the reservation policy of the Govt. of India, we find that this policy stands in contra-distinction with the purport of Article 3(a) and violative of Article 26.1 of the Universal Declaration of Human Rights of the UNESCO. The provision of reservation was made in the Constitution of India as compensatory measure to help the economically weaker and socio-culturally deprived sections of the society for a fixed duration of about 10 years from the adoption of Constitution. But it still continues and even being extended to include more and more categories of social class hierarchy by the Indian Parliament. Now the situation is that at the moment hardly 50% of the seats for admission to different courses in higher education or slots in job market can be filled on the basis of general merit. Despite having a very high merit a general category candidate is deprived of any access to remaining 50% of the seats. I remember reading a news item in a

paper a couple of years back that in a competition for entrance to medical college, a candidate of a reserved category with 4 out of 400 marks was in the admission list, whereas score of the last candidate admitted to the general category was more than 200. Is it "social justice" as they name it or social discrimination. Is it contributory to individual and national development or debilitating and detrimental. Such are the questions which need reflection on the part of intellectual and political elites of the country.

The argument put forth by the adherents of such a concept of social justice is that reservation of slots for the under-privileged and deprived sections of the society is a compensation for their being exploited because of which they remained socio-culturally and economically deprived in the past. But if critically examined the provisions of the reservation policy are not a kind of compensation but an infringement on the legitimate rights of those who are higher in merit and still being denied their due. In fact, the two situations — the one existing before the enactment of reservation policy and the other created as consequence of such enactments are logically the same. In both instances, some social classes (caste) categories are being denied, what was/is due to them on the basis of their native ability or their achievement. Thus in both the cases the principle of fairness is infringed upon. What is the fault, for example, of the one who happened to be born in a particular caste? Despite the two situations being logically the same or comparable, yet one situation is clearly termed as exploitation and the other, social justice!

The supporters of such a concept of social justice, however, advance another argument to justify their position. According to them, since the parents of these weaker sections lack the facilities required for proper education of their wards to enable to compete with those who already have such facilities, it is fair to reserve some slots exclusively for these deprived social caste children. Ultimately then this argument hinges on unequal access to facilities.

In my opinion this argument also suffers from logical fallacies at least in two distinct ways. In the first way, reservation of slots tantamounts to snatching a benefit from the one who deserves it on the basis of his/her talent and giving it to other who may be far below in ability or merit. Secondly, since it is a case of unequal access to means, justice demands that we should try to equalize the means to the extent possible. What is happening on the other hand is that instead of trying to equalize the means we are trying to equalize the men, which is neither possible nor

desirable. The right course would have been to provide the required facilities to such target social groups. Such facilities may include academic, material and monetary help on the basis of ability and merit and psychological encouragement to enhance their motivation, effort, interest, and capacity to excel others.

Rendering of such a kind of help to the special target groups will in no way be construed an infringement on the rights of others, but rather will encourage them for higher attainments which are basic to their personal growth. Such a course infact will constitute social justice in the true sense of the term which alone can go a long way in individual, social and national development by enhancing individual capacity, his/her motivation, commitments, self-effort and sense of competing with others and to excel them. The notion of social justice as it is conceived today only promotes complacency and inefficiency in those whom it purports to serve, and generates frustration, anxiety and anguish in the other categories. Had the existing arrangement of reservation been social justice in the true sense, the other developing countries of the world also would have adopted the same, for there is always an economic or social diversity in other countries also. If we are not wrong, no where on the globe such a (mis) concept of social justice is in practice.

It is just possible that the problem of brain-drain which has attained very serious dimensions in India today, might find its linkages with the existing concept of social justice. Every year a sizable section of the best brain of the country is migrated to more developed countries of the world, for they feel that their talents are not being recognized and nurtured in their own land.

The recent verdict of the Supreme Court of India which has exempted admissions to super-specialities requiring special talent from being guided by the reservation policy and admitted that such admissions be made purely on merit basis. It is a clear signal that we should rethink about the policy at least in the context of institutions of higher learning.

It is for such reasons that under Article 3(d), the present document recommends : "Access to higher education for members of some special target groups such as indigenous people, members of the cultural and linguistic minorities, disadvantaged groups, people having under-occupation and those who suffer from disabilities must be actively facilitated. Special material help and educational solutions can help overcome the obstacles that these groups face both in accessing and continuing higher education."

The UNESCO reiterates in Article 1(a) of the "Priority Actions" at National Level that in keeping with Universal Declaration of Human Rights, the Govt. Parliaments or other decisions makers should establish legislative, political and financial framework for the development of higher education in such a way that higher education is made accessible to all on the basis of merit. No discrimination can be accepted and no one can be excluded from higher education on any ground except that of merit or individual capacity. In India the fact remain that 50% of the people are excluded from higher education despite their being higher in merit.

In the light of what has been said above, the Govt. of India should reconsider its reservation policy especially in the context of higher education. Instead of continuing with the reservation policy, which is highly discriminatory we should introduce "facilitation" policy for the special target groups. It is only the latter policy which can render real help to the deprived, without the least infringement on the legitimate claims of any body else.

Concerns of Higher Education and Admission Criteria

The other item of the present document which needs a special mention is Article 7(d) which reads as under :

"Developing entrepreneurial skills and initiative should become major concern of higher education. In order to facilitate employability of graduate who will increasingly be called not only job seekers but, also and above all to become job creators. Higher education institutions should give the opportunity to students to fully develop their own abilities with a sense of social responsibility, educating them to become full participants in democratic society and promoters of change that will foster equity and justice."

It is important to zero-in on this point because the existing structure and status of higher education is such that today, in effect, the college and university education is relegated to the position of mass education. The students flock to college and university education and even for the Ph.D. programmes without possessing the minimum required ability and capacity for the same. They think that like primary education higher education is their fundamental right and it is the duty of the state to provide them admission. The general tendency of the graduates is to seek jobs, more preferably jobs in the public sector. To join a vocational institute and to work with their hands, they think, is demeaning to them. Because of a huge turnout of graduates from colleges

and universities, there is a neck to neck competition ultimately leading to malpractices and other modes of corruption which have become rampant in Indian society today. Unless the admission criteria and access to college education are linked with the purpose of higher education and made to commensurate with availability of the jobs, by exercising a strong political will, there is no likelihood of ameliorating the conditions and status of higher education in the country.

The Article (7d) recommends that higher education should be shaped in a way that it produces job creators and not merely job seekers. That is, basic entrepreneurial attitudes and initiatives must develop through higher education. When one seek a job he/she exhausts the entry to this job for a long 30 or more years; but when one develops entrepreneurial skills and attitude and starts one's own establishment, however small it may be, he/she creates a number of jobs for needy persons. For this purpose to attain a thorough restructuring or in-depth reforms in higher education are urgently needed. College and university education should be meant only for those who have a sharp analytical mind that they becomes creators of knowledge and not merely users of it. That is why in Article 8(b) the documents recommends "a wide spectrum diversification of higher or tertiary education. The tertiary institution should be able to offer a wide variety of education and training opportunities, traditional degrees, short courses, part time study, flexible schedule, modernised course, supported learning at a distance."

Orientation in Innovative Pedagogical Methodology

The wide spectrum diversification of courses in tertiary institutions capable of meeting different needs of students in accordance with their ability and interest imply use of innovative educational approaches. This issue has been dealt with in Article 9(c) where it is recommended that new pedagogical and didactical approaches should be accessible so as to facilitate the acquisition of necessary skills, competencies and abilities for communication, and for creative and analytical analysis. A direct implication of providing accessibility of innovative approaches is that teachers teaching these courses/classes should be well oriented in new pedagogical methodologies.

The unfortunate part of the situation in the world in general and in India in particular, however, is that for a school teacher who deals with general education only, requirement of a degree/diploma in teacher education is made essential, whereas in a college, in a university or in a highly professional/technical in-

stitute a teacher is required to have no such orientation in pedagogical methodologies. On the contrary, it is considered a demerit for candidates to possess degree in didactical or pedagogical skills even in the case of teaching posts for highly skill based institutions. Can we at all rationalize such a situation?

In view of the above, therefore, a degree/diploma in higher education should be made an essential qualification for teachers teaching in higher education institutions. The inservice teachers should be made to have bridge courses especially in ethics and pedagogical methodologies for developing value perspective, as also skills, critical thinking and creativity. That is why UNESCO in Article 9(d) specially mentions "New methods of education will imply new types of teaching learning materials. These have to be coupled with new methods of testing that will promote not only powers of memory but also powers of comprehension skills for practical work and creativity."

Humanisation of Higher Education and Staff Development

What we need is not only efficient, skilled and competent professionals, but at the same time, good human beings. Delors Commission (1996) describes that education should be based on four pillars — learning to know, learning to do, learning to live together with others, and learning to be. The third aspect (learning to live together) points to development of, social and moral values, which is further emphasized by the 4th pillar — "learning to Be". The preamble of the report "learning to Be" expressed the fear that the world would be dehumanised as a result of technical change. "Learning to Be" is the complete fulfilment in all the richness of his personality." We know quite a few administrators, doctors, engineers, etc who in spite of very competent in their own fields are almost completely dehumanized — insensitive to any human need and adept in exploiting the human predicament for their personal gains.

It is for this reason that teachers teaching in tertiary institutions must have a course in "Learning to Be", in ethical and human values. We must restructure our higher education curricula to essentially include value perspective and pedagogical methodologies.

It is with a view to attain such objectives that this document under Article 10 talks of higher educational personnel, demanding a vigorous policy of staff development as an essential element of higher education which can be attained by designing and implementing appropriate staff development programmes, encouraging innovations in curriculum, teaching-

learning methods, and for excellence in research and teaching. Recommendations concerning the status of higher education teaching personnel have been approved by general conference of UNESCO in Nov. 1997.

In addition while discussing priority actions to be taken at the systems and institutions (II 6c) there is a clear cut recommendation that fundamentals of human ethics should constitute the essential component and be applied to each profession and to all areas of human endeavour. This provision is almost completely lacking in most professional/technical courses. As a result only the skills and competencies are zeroed — in on and the humanization aspect of education remain neglected. The policy makers in education must take immediate cognizance of this aspect which alone can provide worthwhileness to education.

Brain-Drain vis-a-vis Brain Gain

In the developing countries in general and in India in particular there is a serious problem of brain drain. Taking full cognizance of this problem, Article 16 spells out how brain drain can be put an end to and changed into brain gain. The present declaration on higher education recommends for creating an environment "conducive to attracting and retaining skilled human capital either through national policies or international arrangements so as to facilitate the return of highly trained scholars and researchers to their countries of origin. At the same time efforts must be directed towards a process of brain gain through collaboration programmes that by virtue of their international dimensions enhance the building and strengthening of institutions and facilitate full use of endogenous capacities."

The problem of brain drain in India has attained a serious dimensions and if not checked in time it may be disastrous for the nation. We must search for the underlying causes of the problem and learn a lesson from the cases of scientists, like Hargovind Khurana, and a host of other such renowned scholars who left the country only because we could not get them their due. The political interference in selection committees, corrupt practices of different kinds, our own attitude to benefit our own men without any regard to merit of the case, the imbalanced reservation policy of the govt. etc lie at the heart of the problem of brain drain.

While recommending priority actions to be taken at international level, the issue of "brain drain and to shift it to the dynamic process of brain gain" has been discussed under Article III(B). This issue can be

better resolved, if the home country takes interest to remove the bottlenecks and impediments which compel scholars to permanently move to more developed countries. Barring a few, most scholars are basically inclined to serve their own homeland. It is the conditions which compel them to move to other countries. Political apathy in my view to promote higher education and research lies at the heart of the problem. Therefore the document recommends :

"UNESCO, with all concerned parts of the society should undertake action in order to alleviate the negative effects of brain drain and shift it to a dynamic process of brain gain. An overall analysis is required in all parts of the world of causes and effects of brain drain. A vigorous campaign should be launched through the concerted effort of international community and on the basis of academic solidarity and should encourage the return to their home country..."

In essence, we have found the present document "Declaration on Higher Education for 21st century : Vision and Action" a thoroughly well conceived statement on higher education characterized by comprehensiveness, penetration, width, clarity and futuristic inclination. If we take a proper cognizance of the

missions and functions suggested in this, and with a strong political will, implement it in letter and spirit there is no doubt that in the area of higher education, India will find a significant place in the comity of nations and can definitely play a leadership role. We can attain our ancient status of providing leadership to other countries also. We don't lack anything except the political will and a firm conviction and faith in the viability of higher education in overall development of the society and the nation. In tune with the imports and purports of the present document, therefore, a separate policy on higher education needs to be framed and strictly implemented. It is only then that the real objectives of higher education can be achieved with success, which alone can usher India into 21st century in an effective and worthwhile manner.

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Calendar of Events

Proposed Dates of the Event	Title	Objective	Name of the Organising Department	Name of the Organising Secretary/ Officer to be contacted
Jan. 3-13 2000	Developing Multimedia Courseware for Distance Education	To introduce multimedia technology & its applications in training and education	Commonwealth Educational Media Centre for Asia New Delhi and University Computer Centre, Osmania University, Hyderabad	Mr. K Narayanan Head, Admn. & Finance, Commonwealth Educational Media Centre for Asia (CEMCA) 52, Tuglakabad Institutional Area, New Delhi-110 062
Jan. 27-29 2000	National Seminar on Developmental Communication — Issues & Challenges	Helping those engaged in development work to plan effective communication strategies	Deptt. of Home Science Extension & Communication, MS University of Baroda	Dr. Uma Joshi Deptt. of Home Science Extension & Communication Faculty of Home Science, MS University, Baroda Vadodara-390 002
Feb. 22-24 2000	International Conference on Higher Education for Human Development	To exchange views on issues likely to impact human development in the next century	Association of Indian Universities, New Delhi	Dr. Veena Bhalla Association of Indian Universities, AIU House, 16 Kotla Marg, New Delhi-110 002

Active Learning in Management Education

A Practical Approach

G. Prageetha Raju*

MBA graduates are expected to have sophisticated technical and analytical skills. With today's downsized companies and dynamic markets, graduates also need to be self-motivated, able to work independently and effectively within a diverse team, able to make presentations, and to think entrepreneurial. MBAs today have to be able to hit the ground running with the ability to work equally well in the field, in front of clients as well as in front of a computer creating a complex spreadsheet.

Active learning strategies in the classroom, as a supplement to the traditional, passive lecture help develop the skills needed by today's MBA graduate. Active learning refers to classroom strategies, which involve active participation by the students including speaking activities; small group activities, cases; discussions, writing tasks and role-plays. The objective is to provide "hands-on" experiences which will help convert knowledge into effective application of concepts and skills.

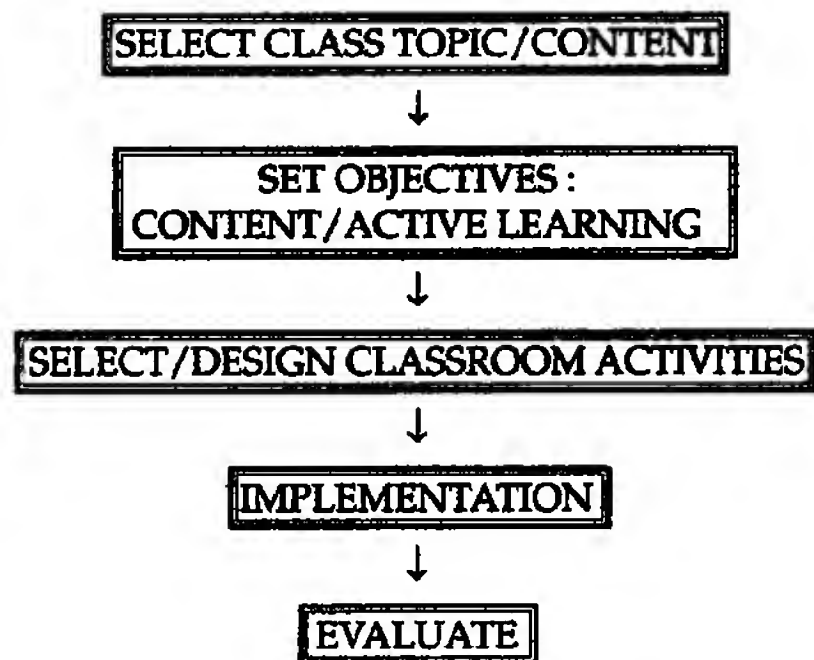
The objective of this paper is to introduce active learning tools and also to offer a model that can help instructors plan active learning modules in their classes. Specifically, the overall objectives of the model are :

- To provide a model which individual instructors can use to plan, implement and evaluate their classroom instructional activities.
- To provide instructors a common framework and language for collegial discussion, reflection and evaluation related to instructional activities.

A Model for Designing & Organizing Classroom Activities

While there are endless, complicated theories of education, a good model for instructors is one that contains useful concepts, is easy to understand and is easy to apply. The model is as follows :

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1. Choose the topic to be covered in the class.
2. Set the objectives, i.e.,
 - a) The content : What course materials are to be covered in the class?
 - b) Active learning :
 - i. What are the student participation objectives?
 - ii. Do you want students to ask questions?
 - iii. Do you want them to be involved in the discussions?
 - iv. Do you want them to lead the discussions?
3. Design classroom activities to meet your objectives i.e., what methods and/or techniques can accomplish the objectives? Should cases be used? A simulation? Role play? Small group discussions? Lecture with questions?
4. Put them into action
5. Evaluate the classroom activities.

Application of the Model in an Organizational Behaviour (OB) Class

The topic chosen is Communication. It has two main objectives, viz.,

- a) to provide students an understanding of differences between one-way and two-way communication (content objective).
- b) To provide students an opportunity to practice

one-way/two-way communication (*active learning*).

The active learning classroom activity is designed to meet the above objectives through an exercise where groups of two students (dyads) interact. The students are asked to sit back-to-back. One of the students is given a picture. He should dictate the picture to his/her partner and the partner is to draw it by listening to the speaker.

This activity is done in two environments :

- a) The person drawing has to draw without raising questions.
- b) The person drawing can raise questions to clarify with the speaker.

On completion, the activity is followed by an instructor-led discussion comparing all the groups. The exercise incorporates theory and provides students an application of the theory. They learn while doing. Evaluation at the end of class include discussion of both content and active learning objectives of the class sessions.

Application of the Model in an MIS Class

The topic of the session, "The use of personal computer in business". It has two main objectives, viz.,

- a) the demystification of the computer for the novice and casual user (*content objective*).
- b) to provide immediate hands-on exposure on the computer which students would be using during the semester (*active learning*).

The Instructor designs the class by disassembling and reassembling the computer. Next, he puts students into groups to perform the same activity. After completion, students evaluate their hands-on experience and the instructor summarizes the use of computer for the class.

Other Tools Which Enable Active Learning in the Classroom

Discussions

It is probably used most frequently by teachers, however, it is not learned quickly. The art of questioning takes lots of preparation and practice. Discussions between facilitator and participants and those among participants are useful experience because the learners can take a more active role, comprehend more of the content to be discussed and utilize more of their senses.

Often teachers in classes feel that they must lecture because discussion is impossible in large classes. In fact, discussion techniques can be used in classes of all sizes. Also, in discussion groups in large classes the instructor is faced with several problems, such as :

- a) Getting participation in the discussion
- b) Making progress (or making the student aware of the progress) towards course objective.

Often one assumes that a large class simply requires skills in lecturing and writing objective tests. These are important but one can do more. Large classes need not constrain you as much as you expect. One doesn't need to lecture or at least don't need to lecture all the time.

Getting Student Participation in Large Classes

In this situation, my first advice is to try "learning cells" or student-led discussions. If this is impractical, instructor can still get the advantage of student participation if he/she plans for it, such as,

How to Handle Arguments in Discussions

In any good discussion conflicts will arise. One of the teacher's functions is to help focus these conflicts so that they may contribute to learning.

- Reference to text or other authority may be one method of resolution, if the solution depends upon certain facts.
- If there is an experimentally verified answer, this is a good opportunity to review the method by which the answer could be determined.
- In any case, it should be clear that conflict may be an aid to learning and the instructor need not frantically seek to smother it.
- Some times students will dispute instructor's statements or decision. Such disagreements may sometimes be resolved by a comparison of the evidence for both points of view, but since teachers are humans, they are all too likely to become drawn into an argument in which they finally rest upon their own authority. I suggest, listing the objections on the blackboard because it tends to prevent repetition of the same argument.

Buzz Groups

It is one of the popular technique for achieving student participation. In this procedure, classes are

split into small subgroups for a brief discussion of a problem. Groups can be asked to come up with one hypothesis that they see as relevant with one application of a principle. In large classes, Instructor marches up the aisles saying, "one", "two", "one", "two" for each row and ask the "one" row to turn around to talk and ask to 'two' row to do the same. The groups should introduce themselves to each other and then choose a person to report for the group. Next they are to get from each member of the group one idea about the problem/question posed. Finally they are to come up with one idea to report to the total class.

Fishbowl (Inner Circle) Method

This is another form of discussion, where some of the participants form an inner circle and they discuss a topic while the remaining participants listen and observe. If the classroom has movable chairs, then the seating is arranged in two concentric circles. The instructor may explain that he/she wants to give some of the quieter members of the class a chance to express their ideas. It is impressive to note that students who are normally silent will talk when they feel the increased sense of responsibility as members of inner circle.

Guidelines to Fishbowl

- a) Choose a topic that will be of interest to everyone.
- b) Divide the groups either by men versus women or by age or by students with job experience and those without it.
- c) Arrange a circle of chairs for those who are in the fishbowl, with a ring of chairs for observers around the outside. The outsiders are asked to observe,
 - ◆ Who speaks and who remains quiet?
 - ◆ What other roles do individuals play?
 - ◆ How often does the discussion drift?
 - ◆ What non-verbal signals did you see?
 - ◆ How were conflicts handled?
- d) Ask the selected people to join the inner circle. Give instructions to the outer circle that they should be making notes on the points that are being discussed. They must remain quiet even though they will be tempted to talk among themselves.
- e) Conduct the discussion for the designated pe-

riod of time while encouraging participation by everyone in the inner circle.

- f) When the time is up, switch group so that those who had been listening are now in the fishbowl.
- g) When the second round's time is up, provide an opportunity for de-briefing. You could do this by forming one large group and sharing observations and areas of agreement/disagreement. Or you could form small groups of four made up of two people from each of the original sets of groups.

Two-Column Method

It is a method where there is effective use of black board and where there is a conflict or where a strong bias prevents full consideration of alternative points of view. When students hear arguments against their point of view, they become involved in attempting to refute the arguments rather than listening and understanding. Disagreements thus often tend to push the debaters into opposite corners in which every idea is right/wrong, good/bad, black/white.

The instructor posts the problem to the students and before the issues are debated, the groups are asked to list the argument on each side of the board. The instructor then heads the two columns, "FOR" and "AGAINST" and then asks for facts/arguments that group members wish to present. The instructor's task is to understand and record in brief the arguments presented. If some one wishes to debate an argument presented for the other side, the instructor simply tries to reformulate the point so that it can be listed as a positive point in the debater's own column. But even though an argument is countered or protested it should not be erased, for the rules of the game are that the two columns are to include all ideas that the students consider relevant.

When the arguments are exhausted, discussion can turn to the next step the problem solving. At this point, the group can usually identify areas of agreement and disagreement and in many cases it is already clear that the situation is neither black nor white.

Challenges and disagreements may be an indication of an alert, involved class. But the instructor should also be aware of the possibility that they may be symptoms of frustration arising because the students are uncertain of how to solve the problem.

Role Playing

Using a case study and role playing together definitely increases participants' involvement and forces them to apply theory to practice.

Participants are given a printed description of the problem situation with sufficient detail for participants to determine the appropriate action they might take.

Counselling and Interviewing can be best studied through this method.

Case Studies

This is a very popular method. It simulates reality, draws upon participants' experiences and knowledge and involves them more actively in the learning process and forces them to apply theory to practice.

Experiential Exercise

This method encourages active learning. The instructor introduces a concept through lecture method followed immediately by an exercise. This enables the students to actually experience the functioning of the concept. There is extensive use of black board, discussions and writing.

For example, the following exercise can be given so that the student practically understands the OB models

What model of OB would be most appropriate in case of —

- a) Food servers in a local restaurant of a prominent fast-food chain and
- b) Circus labourers temporarily employed to work the week that the circus is in the city.

The students can divide themselves into groups to perform the above exercise if the class is large. First, the students are to write a job description for the above positions and suggest a model. This is to be done through mutual discussions and finally presented in writing. The reporter in each group is made to read the presentation so that his solution is open for discussion. There may be agreements/disagreements from the others. The reporter himself is to answer and justify. He can seek his group's assistance if necessary. Time frame is fixed for every group. The instructor steps in when the arguments are irrelevant, or if the presenters are uncertain about the solution.

Mini Projects

This is also a form of experiential exercise but it is outside the classroom. The students are made to apply a theory, concept or process outside the classroom and submit their findings in a written form.

Carousel Writing

This is a very interesting method of learning. It stimulates quick thinking. It is some thing like merry go round. Four or five charts are pasted to the wall at different places. Each chart contains a question written on it. The students are divided into four/five groups (the number of student groups should be equal to the number of charts). Each group has to choose a reporter but his duty is to write. Each group is given a different colour pen. Each group goes to one chart and answers the question on the chart. Any number of answers can be written. A time is fixed by the instructor and within that time the writing should be over. The ideal time is 3 minutes. The instructor then loudly says, "MOVE" then all the groups are to move to the next chart and start answering the questions. All the members in the group are to participate. This exercise is complete when all the groups answer all the questions on all the charts. This exercise is not only a break from regular monotony but also increases the sense of time urgency and rapid thinking.

Conclusion

Over a period of time, these approaches to thinking through the designing of classrooms with active learning in mind will lead to a change in the role of the instructor and of the student. The instructor, perhaps used to being the "sage on the stage" will add another role "guide on the side" to his/her repertoire of teaching skills. And most importantly, the students will benefit from a more diverse classroom experience and emerge better prepared for the challenging and difficult work world that the 21st century business arena promises.

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Impact of E-Commerce and Internet on Accounting Education, Practice and Research

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During the last decade of the 20th Century E-technology has developed fast and become popular with people of all walks of life. Different electronic equipments with unimaginable working capacity, efficiency, accuracy, speed, simplicity and conventional character have been developed and introduced in business activities. The introduction of E-products and their application in business activities has created magic in business performance. The total electronic hardware production in India has increased from Rs. 97.2 billion in 1991 to Rs. 214.0 billion in 1997.¹ These figures reveal the usage trend of E-products in India.

In the E-product scenario, the innovation of E-products like — computer, E-Typewriter (with memory), Fax Calculators, Optical Printer, E-Watches, Wireless sound (in TV, Speakers, Head Phone, Telephone), Pager etc has proved a boon to human being. These have not only facilitated the business activities by creating fast communication system but also promoted accuracy in decision making, recording transactions, storing information and its transparency. The use of computer in business enhances business intelligence as it uses the data more intelligently for managerial decisions.

Introduction of internet system has reduced the boundaries of businessline and connected different places. It facilitates transmission of business messages or live business activities within a fraction of minute to distant places. The best example of the use of internet and computerised system for keeping record of trading activities is the Bombay Stock Exchange (BSE). On 14th March 1995 its On-Line Trading System moved 818 scrips off the trading floor and on to the computer. Five hundred brokers used the system that day.² It helps secure transparency in trading so investors get the best price available at the time of trading without interruption. Recently BSE introduced demat system which is a unique example of keeping record and accounts of specified companies' scrips using electronic system. In this system, the Stock Exchange Office maintains up-to-date computerised record and account of scrips of the companies specified under demat system. The development of different software packages has facilitated

a layman to work out in different areas efficiently.

Impact of E-Products

Accounts

- * Application of E-product facilitates fine presentation of records.
- * It speeds up the working of business activities.
- * The use of computer system ensures correct recording of the transactions in the appropriate account provided that the information feeder has basic knowledge of accountancy.
- * It works out all mathematical calculations very fast and correctly.
- * It stores the data and processes it as per requirements.
- * It is efficient in preparing invoices and keeping their record.
- * It prepares required accounts immediately.
- * It helps transmit information immediately to another distant place using internet system.

Research

E-products have provided efficient and effective facilities to the researcher. They ensure correct calculations, fine presentation, addition to the data, storing the data and representing it, graphic presentation and getting it in different mode of printing and presents the records on an attractive format.

The Future

How your organisation manages and uses information determines its failure or success. And how well you manage and use information depends on the technology you use. Application of technology like E-mail would help business in establishing speedy instant communication system. Moreover, E-technological innovations like — Digital Nervous System, 64-bit hardware system and its application would help the business by providing VLM (very large memory) technology to ensure efficient business performance. Forester Research predicts that by 2003, as much as 5% of all global sales of goods and services could be ordered via the internet annually.³

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Libraries by the Year 2020 A.D.

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As the year 2020 rapidly approaches, more and more is being written about the promise and potential problems of the 21st century. It is only natural, that we are eager to peer into the crystal ball of the next millennium as the year 2000 presents a demarcation of 'now' and 'future'. It gives a focal point on which to "look back" at where we have been and how we have arrived and where we are at the threshold of the next millennium. It is essential to take a look backward and see how things started, how they have evolved and where they might be headed.

The Past

Some form of communication among the ancient medieval man had existed. There was a gradual transition from using quipus, which had knots of different shapes and sizes representing some hidden message. This represented the mnemonic form of communication. Pictograms representing names of things they stood for gave way to Ideograms where ideas or thoughts were expressed by pictures. Then came the phonetic form of expression, where every element/symbol was denoted by a particular sound. Then came the different forms of writing materials. The clay tablets and palm leaves were predominant till the 14th century. The 15th century saw the arrival of the movable type era of printing invented by Johann Gutenberg. The final outcome of this evolutionary process of knowledge representation was in 1658 when "Orbus Pictus" was published. It was the first illustrated textbook. Since then there is no looking back to the quality of paper and the quality of printing types being used?

The Present

The shockwaves of industrial revolution which took place in the 17th century changed human lives as much and as profoundly as the agricultural revolution. Ever since the industrial revolution, society has moved from being the predominant industrial society to what is referred to as the post-industrial society. The main feature of this society is the way modern technologies are used effectively for various purposes. Capital alone in such a society does not endure productivity; the key resource here is information. The industries of today are becoming more brain intensive than capital intensive. Information today is considered as the self-regenerative resource (the other resources being the 3-M's money, material and man). Information today is the fourth dimension of society.

In the information society, the concept, function

and structure of the library is undergoing drastic changes. The functions of the library are to acquire documents related to users needs, to organize and display them in various ways and finally to make them available to users. These are usually dictated by the objectives of the library described by Prof. Ranganathan's "Five Laws of Library Science". In this fourth law, "save the time of the readers" an object relating to internal efficiency of the library is emphasized. Computer applications to library and information field are more relevant in this context as it undoubtedly increases the efficiency of the day to day library work. Factors such as information explosion, the availability of information in machine-readable form, etc have forced automation in the library environment. Today the applications of computers can be categorized into library automation, information retrieval, management information systems and office automation. In addition to these applications, computers have offered a new dimension to cooperation among libraries. They are important for the creation of library networks.

Networks among libraries serve cooperation by providing for the sharing and exchange of bibliographic and reference services and text. Today with the growth of machine-readable databases in libraries, there is an increase in the amount of library work being computerized. This in turn is forcing an upgrading in the kind and quality of technical communication.

An electronic computer network connecting millions of computers all over the world is the Internet. It provides the path for the continuous flow of data among computers using protocol software. It is the information superhighway. Its basic applications like ftp, email and remote log-in allow flow of information. Its various tools like Gopher, WWW and Archie allow for fast access of reliable data. Its various services like Usenet service, Telnet service, etc further enhance its capabilities. Internet is regarded as the network of networks. It is the fastest medium of access to information of all types at the click of a mouse, today. It is an essential element in libraries today, which is providing new dimensions to the way libraries acquire, process, store and disseminate information.

Today in libraries access to online information service has become a standard part of library practice and libraries have acquired CD-ROM's and have mounted them on campus networks for wide access. Scholarly publication and many other forms of publications as well, are increasingly moving towards electronic de-

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International Conference on "Higher Education for Human Development" 22-24 February, 2000

Background

As a part of its platinum jubilee year activities AIU is organising an International Conference on "Higher Education for Human Development" at New Delhi during February 22-24, 2000.

The World Declaration on Higher Education for the Twenty First Century, adopted by the UNESCO-sponsored World Conference on Higher Education, at Paris in October, 1998, noted that there has been an unprecedented demand for, and a great diversification in higher education; and that the latter is of vital importance for socio-cultural and economic development. The declaration on higher education in Asia and the Pacific states that higher education should give every student the philosophical, historical, psychological and anthropological foundations of knowledge, must support research, pilot curriculum projects, provide expertise that facilitates access to modern technology, and amongst other things lead to internationalisation and dissemination of human and societal knowledge.

The 1996 UNESCO report, "Learning : The Treasure Within", popularly referred to as the Delors Report, visualises four functions for the Universities. First, to prepare students for research and teaching. Second, to provide highly specialised training courses oriented to the needs of societies. Third, to be open to all in order to foster lifelong education in its widest sense. Fourth, to strive for international cooperation. The report emphasises that education for all, throughout life, has to be founded on four pillars of learning — to know, to do, to live together, and to be. Clearly education goes beyond generating knowledge and applying it. Its objective has to be all-round human development.

The Objectives

The principal objectives of the present Conference are :

- To provide a platform for the Indian and foreign academics to exchange views, on different issues in higher education, that are likely to have a significant impact on human development in the first century of the new millennium.
- To work towards the establishment of a regular arrangement for exchange and dissemination of information on technological and pedagogical developments in higher education.

- To create a general awareness, amongst the different stakeholders of higher education, about the changing form, responsibilities and requirements of higher education.

Themes & Sub-Themes

Realising that it is not possible to have extensive discussions on all aspects of higher education the Conference will focus its attention on the following :

- The Knowledge Perspective*
 - The Role of Information Technology in Academia
 - The Nature of Research
 - Application of Research to Societal Needs
- The Learning Perspective*
 - The Globalisation of Teaching-Learning
 - The Pursuit of Academic Excellence
 - The Pillars of Education (to know, to do, to live together, to be)
 - Flexible Learning and Lifelong Education
- The Socio-Economic Perspective*
 - The Social Impact of Higher Education
 - Human Resource Development
 - University-Industry Linkages
- The Cultural Perspective*
 - Ancient Heritage/Roots
 - Multiculturalism in Academics
 - Unity through Sports

The inaugural session will be held from 10.00 a.m. on February 22, 2000. The valedictory session will be held on February 24, 2000 from 2.30 p.m. to 4.00 p.m. Four sessions on the above themes will be held in the intervening period. A keynote speaker is being identified for each theme, and his/her address will be followed by other presentations, and discussions.

Venue & Schedule

The Conference and the Workshops will be held at the Convention Centre, Jamia Hamdard, Hamdard Nagar, New Delhi-110 062.

Call for Papers

Papers are invited from the participants on the themes and sub-themes listed above. Extended abstract (about 750 words) should be sent to Dr. Veena Bhalla, Association of Indian Universities, 16 Kotla Marg, New Delhi-

110 002, by Dec. 30, 1999. The extended abstracts will be circulated in advance to all participants and will form the basis for discussion. The full paper, which will be published by AIU, should be submitted before the opening of the Conference. It should be typed on one side of A4 size paper with double spacing and wide margin to the left. It may also be submitted in electronic version on 3.5 inch, high density, floppy diskette and in PC compatible word 7.0 document format. A hard copy with details of file name etc should also be enclosed for fast processing.

Registration Fee

Registration fee for the Conference would be as under :

Delegates from India	Rs. 2000.00
Delegates from foreign countries	US\$ 500.00

Pre-Conference Workshops

It is proposed to organise one-day pre-conference workshop/s on the following themes :

20th February, 2000 Theme 1	: Quality Assurance and Accreditation
20th February, 2000 Theme 2	: Unit Cost in Higher Education
21st February, 2000 Theme 3	: Performance Indicators of Distance Higher Education
21st February, 2000 Theme 4	: Staff and Educational Development.

Fee for each workshop will be Rs. 500 for Indian participants and US\$ 50 for foreign participants.

Post-Conference Excursion

A post-conference excursion to Hardwar, Rishikesh, Dehra Dun and Mussoorie hills, is being organised on 25-26 February, 2000.

The cost of excursion will be Rs. 2500/- (US\$ 60/- for foreign delegates) and will cover transport, stay for two nights at Dehra Dun, and meals.

Accommodation

Accommodation can be booked in the following categories :

Category	Rates (per day)	
A. Hotel	Rs. 4500-9000	or US\$ 100-200
B. Hotel	Rs. 2000-3000	or US\$ 40-60
C. Guest House	Rs. 500-1000	or US\$ 15-30

Communication

The Conference Secretariat may be contacted at AIU House, 16 Kotla Marg, New Delhi-110 002.

EPABX : 91-011-3231097, 3232305, 3232429

Fax : 91-011-3232131

E-mail: aiudel2.vsnl.net.in

Website: <http://www.aiuweb.org>

ASSOCIATION OF INDIAN UNIVERSITIES

Registration Proforma

International Conference on

"Higher Education for Human Development"

Name _____
(Surname) (First Name) (Other)

Designation _____

Organisation _____

Address for Communication _____

Phone _____ Fax _____

E-mail _____

Whether accommodation required : Yes/No
☐

If yes, indicate the number of accompanying persons

Class of Hotel (Please tick) ☐ A ☐ B ☐ C

Whether interested in post-conference Excursion Yes/No
to Hardwar, Rishikesh, Dehra Dun, Mussoorie hills.

Whether interested in attending Workshop/s Yes/No

Theme/s ☐ 1 ☐ 2 ☐ 3 ☐ 4

Fees is being sent by Pay Order/Demand Draft No. _____
dated _____ in favour of "The Association of
Indian Universities" payable at New Delhi for.

Conference ☐ Workshop ☐ Excursion ☐

Date _____ Signature _____

Kindly return to :
Dr. Veena Bhalla
Association of Indian Universities,
AIU House, 16 Kotla Marg,
New Delhi-110 002
Fax : 91-011-3232131

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livery to end-user. In this context the role of the library and that of the librarian is changing from being the provider of information to the facilitator of information. Under these circumstances libraries need to redefine their role.

The Indian library scenario is not aloof from the developments taking place around the world. Most of the libraries have started automation. Library networking, online services, email services have already become operational and is in the process of becoming functional at major cities in India. Resource sharing is going to be indispensable in the future. It is the need of the hour in India due to financial constraints and high conversion rates. In this regard it is worthwhile to mention that the IIT's have signed a memorandum of understanding to form a consortia to achieve the goal.

The Future

The following paragraphs will describe the foreseen trends in libraries by the year 2020 and the newly evolving library systems around the world.

Nature of access to information is changing rapidly and radically. The source of the change is the emergence of Internet and the transformative character of the WWW technology. It has changed the ground rules for the production of and access to scholarly communication. In contrast to the evolutionary trend of the past thirty years, today's trends are revolutionary in their impact and significance.

It is difficult to determine the scale and speed of change in transfer to electronic publication. The rationale being,

- growing number of scholars and institutes access WWW, scholars and institutes cannot afford exorbitant journal rates,
- electronic format allows for a rapid turnaround. This means that the journal can carry scholarly writing of a time sensitive nature. It would be a hybrid between serial commentaries and scholarly publications. As a bonus, authors have a certain satisfaction in seeing an article "go in print".

It is thus obvious that editors anticipate that individual scholars will be able to access journals directly. Hence, electronic access to journals is high on publisher's agenda, with each offering discounted prices, relaxation of photocopying rules and access to electronic versions of the journal. Official bodies see this as a means of reducing cost of dissemination.

With publications becoming freely available over networks, the user does not need support services to be catalogued and organized or required lending. This raises a question on the extent of training required by users. This holds true for electronic publications, for print publication systems are still needed. The question of interest is after how long the balance shifts from making print resources available to facilitating and managing access to electronic resources.

The role of libraries in the future can be simply expressed as one in which they support networked information use. Because of their experience with copyright in relation to photocopying, librarians are well placed to advice on this issue and can play a role in supporting not only the use of networked resources, but also the development and effective dissemination of such resources. Librarians are familiar with the contacts for supplying electronic information service and with the negotiation aspects of supply of information resources. For some time to be come, information is going to be available in the print archive. Whether the copy is scanned into digital form or left on paper, the library will be expected to deliver it to their user, rather than the user visiting the library to collect the item.

Though the proportion of electronic documents accessed by users is likely to increase considerably, there will be a demand for access to printed materials. A number of key activities of the library can be recognized in this regard,

- acquisition of physical materials including CD-ROM's and arrangement of licensing agreement with the owners of electronic networked information,
- processing of physical materials including networked electronic information,
- diffusion of information i.e., lending physical materials, mounting electronic sources on the campus network,
- information enquiry services which covers everything from the location of items, to searching online databases.

Thus we are led to the conclusion that the existing systems must be redesigned to support user's needs and not the needs of the organization. This would include the integration of systems to support the four primary functions. Such an integrated system would be extremely reliable with a high degree of built in intelligence. It should be intelligent enough to know the identities of users and librarians. It would need to be highly secure to prevent misuse of the system. In those parts of the electronic library used directly by clients, without the intervention of the librarian, the system will need to learn how the individual behaves in search and using capabilities of the system. It will need to include personal digital libraries of downloaded materials for every user, and should be able to determine through an in-built filter, when an item requested by one user is already held at another personal library. These personal libraries will need to be supported by search and retrieval systems that can be tailored by individual user to relate to his/her search behaviour and particular modes of classifying the content.

Thus we can say that by the year 2000 we would have moved from documentation to information and in the next two decades will move from information to knowledge. □

Sustaining University Research

Professor V.S. Ramamurthy, Secretary to Government of India, Department of Science and Technology, delivered the convocation address at the Twentieth Convocation of the Anna University, Chennai. He said, "While sustained public funding for fundamental scientific research in academia is a necessity to keep university research at the cutting edge, university-industry collaborations are being recognized as an important means for the faculty and students to interact with industry and encourage universities to offer educational programmes attuned to the needs of the industry and the nation." Excerpts

Twenty-first century is going to be driven by Science and Technology. Recent developments in communications and transport have shrunk the world into a global village and national developments are going to be increasingly dictated more by the knowledge strength than by access to natural resources and capital. It is Science and Technology which are going to provide access to new knowledge and to the economic benefits arising out of this knowledge. Thanks to the sustained efforts during the last five decades, today India can boast of a strong educational and S&T base — more than 200 Universities, a large network of research institutions in almost all branches of science and engineering and a number of in-house industrial R&D units. In some areas of high technology like Agriculture, Space Technology, Nuclear Technology, our expertise is globally competitive. Our industries have also moved from a predominantly trading activity to design, development and manufacturing in recent times. While it indeed appears that we are ready to take on the world in a globally competitive environment, it is necessary that we continue to build on our S&T strengths that we have already established and synergize them to yield maximum economic benefits to our population. It is therefore not surprising that the mandates of the

S&T Departments in the Government today not only go beyond support for research and development in the laboratories but also include all such facilitating activities which lead to successful transfer and diffusion of the technologies to the users.

All Science and Technology based activities, be it Basic Research or Applied Research or Technology Development and Transfer or any other S&T based activity, presume for their success ready availability of trained manpower. In the last few years, the educational system not only in this country but also across the world has come under some serious discussion. Let us look at the Indian scene. Our country produces a large number of students at all levels every year. It is also well recognized that, while the quality of education imparted in some of the leading institutions like the IITs or, for that matter, this University is comparable to the best in the world, it is not up to expectations in the majority of our institutions. Lesser and lesser number of students are opting to take to science streams while increasing number of engineering students opt to take careers in non-engineering but more lucrative disciplines such as management and marketing. Some of our bright ones opt to go outside the country for better opportunities. All this is happening at a time when Science and

Technology are becoming more and more necessary for national development and for facing a competitive global environment.

A number of factors may be contributing to this changing student preferences in education and career options which are likely to affect the long term availability of trained personnel in areas of high science and technology which is necessary to build a knowledge based society of the next millennium.

- (i) *Increasing career options in non S&T areas* : The last few decades have seen the advent of several new technologies in the market place. The rapid introduction of these technologies has placed tremendous pressure on the available skilled manpower. While on one side the inertia of the formal educational system to respond to the changing needs leads to manpower shortages, shortage driven increases in salaries for skilled personnel only accentuates the migration of students from one career option to another on the other side. The outstanding success of some of the teaching shops in the area of Information Technology in the recent times highlights this weakness of the formal educational system. A direct consequence of this large-scale migration of the students to a few high demand streams is the non-availability of quality students in other streams.
- (ii) *Mismatches between what universities teach and what industry needs* : The fast changing technologies also result in changing expectations of the potential employers from the graduates coming out of the universities. Very often, the employers are forced to train new entrants to suit their job needs. Often the

university qualification serves as a quality mark with the skills acquired during their studies finding little or no use after employment.

(iii) *The need for mid-career retraining* : The fast changing technologies also demand that technical education cannot be a once-in-a-life-time exercise. Unfortunately, our educational system is not tuned for re-enrolment for mid-career training. Often the employers have to make their own in-house arrangements for such training.

(iv) *The general resource constraint leading to poor infrastructure for teaching and research* : The fast changing technologies also result in early obsolescence of teaching and research infrastructure. Public funding for majority of institutions is shrinking in the recent times while the fees cannot cope up with the increasing costs of infrastructure. Science and Technology discoveries at academic institutions, while being a source of revenue, are often too embryonic for commercialization.

Having taken cognizance of these developments in the educational system, a number of steps are being taken to respond to these changing needs. While sustained public funding for fundamental scientific research in academia is a necessity to keep university research at the cutting edge, university-industry collaborations are being recognized as an important means for the faculty and students to interact with industry and encourage universities to offer educational programmes attuned to the needs of the industry and the nation. Similarly, University-R&D institution partnerships result in easy access of expertise and sophisticated research

facilities of the latter to the academic community while bringing in the freshness of the young scholars to the latter. All these steps will also enable the academic institutions to attract better quality faculty. The industry in its turn can benefit by easy access to the facilities and expertise available in the universities and the R&D institutions.

The S&T departments of the Government such as the Department of Science and Technology and the Department of Biotechnology, since their very inception, have been the major sources of extramural funding for research in basic sciences and engineering in the universities and other educational institutions. Not only research proposals from individual scientists but also expert groups and Centres of excellence in new and frontier areas are supported. Special attention is being paid to young and promising scientists. The recently started Kishore Vaigyanik Protsahan Yojana aims at identifying and nurturing young talent even at the school level and supporting them to pursue studies towards a research career. In the last few years, the Department of Science and Technology has also placed considerable emphasis on many facilitating activities for technology transfer and commercialization. For example, the Home Grown Technology Programme of the department enables development of technologies by the academic and the R&D institutions jointly with industries. The Patent Facilitating Cell not only disseminates regularly patent information on new technologies through its News Letter but also enables patenting of their discoveries and inventions by the academic community. A number of awareness workshops on Intellectual Property Protection have also been held in academic institutions across the country. The Technology

Development Board provides financial assistance to companies to commercialize new technologies. The Confederation of Indian Industries and the Technology Development Board have taken a new initiative recently to establish a network of Technology Transfer Centers (CII-TDB T-Net) using professors/scientists at academic institutions/R&D institutions/other institutions, independent experts and innovators in order to establish an effective mechanism to provide technology transfer and technology related problem solving services for the benefit of the industry. The services offered by the Centres will be on payment basis thus making the entire initiative self financing except in the formative period.

I am glad that one of the first 'bumble-bee' centres is proposed to be established in this very campus. Today, the Department of Science and Technology is perhaps the only organization in the country which provides end-to-end support for technology development, transfer and commercialization.

In summary, educational institutions and institutions of higher learning face several new and diverse challenges. While education at the undergraduate level will continue to be their main mandate, strengthening of research in new and emerging areas of Science and Technology would be essential not only to raise the quality of education that the students receive but also to ensure that the best of brains are available to teach and the industries and other user communities have a ready store-house of knowledge and expertise. New and novel initiatives would be required by all stake holders — the educational institutions, the industries and the government so that our educational system retains its glory and contributes to the national development in the new millennium. □

CAMPUS NEWS

Exam Schedule for Kerala Varsities

All universities in Kerala are expected to follow a common calendar for the conduct of examinations and the declaration of results from the next academic year. This follows a recommendation to this effect by the Inter-University Consultative Committee (IUCC).

According to State Education Minister, Mr. P.J. Joseph, the recommendation had been taken to overcome the difficulties faced by the students on account of variations in the examination and result declaration schedules of different universities. The Minister presided over the IUCC meeting held at the Cochin University of Science & Technology.

Though recommendatory in nature, the Government would take steps to give effect to this proposition of the IUCC, the Minister said.

Elaborating on the deliberations of the committee, the IUCC Secretary, Dr. Cyriac Thomas, explained that as per the common calendar that had been agreed upon by a committee of University Examination Controllers, the examination schedule was expected to begin in April and conclude by June for all the universities, at least for the pre-degree, degree and professional courses. The university authorities were to ensure that the process did not stretch beyond July.

Another recommendation of the IUCC was that all universities should adopt centralised valuation of answer papers to avoid delays. However, this was an expensive proposition, compared to home

valuation of answer papers to avoid delays. However, this was an expensive proposition, compared to home valuation, and the resources would have to be found to support the adoption of this system.

One option being considered was an increase in the fees, including examination fees, and a committee of university finance officers will look into this and come up with proposals. A suggestion that the Government provide partial financial support to the universities for adopting centralised valuation had also been made.

The Education Minister made it clear that courses that were not relevant to the current social needs would not be sanctioned next year. The reintroduction of old courses in a new format would not be permitted.

A study would be made to ascertain which courses had no takers and explore the areas in which new ones should be started. The emphasis would be on the adoption of an inter-disciplinary approach in the formulation of courses. If the universities did not have a ready syllabus for a particular course, the relevant UGC package or the syllabus of another university which conducted such a course could be utilised, the Minister said. For instance, there was demand for students who have studied counselling but courses in this subject were not being offered by the universities.

There was scope for courses in other areas such as biosciences and para-medical education.

A committee headed by the Calicut University Vice-chancellor, Dr. K.K.N. Kurup, will come up with recommendations for the implementation of the UGC scheme for providing autonomy to colleges and university departments. Though the implementation of the UGC scheme has been pending for a long time, no decisions have been taken as yet.

The IUCC also recommended that qualified school teachers be deputed to the Teacher Education Centres at universities if there were openings for them. This was to improve their remuneration and career prospects.

Those who took part in the IUCC meeting included the Higher Education Commissioner, Mr. N. Chandrasekharan Nair, the CUSAT Vice-chancellor, Dr. K. Babu Joseph, the Sanskrit University Vice-chancellor, Dr. N.P. Unni, the Kannur University Vice-chancellor in charge, Prof. Alexander Karakkal, the MG University Pro Vice-chancellor, Prof. V.N. Charlotte, the CUSAT Pro Vice-chancellor, Dr. N. Unnikrishnan Nair, and top authorities from the Education Department and the universities in the State.

INCOLA-2000

An International Conference on Lasers & their Applications (INCOLA-2000) is being organised at St. Joseph's College (Autonomous) Tiruchirappalli on March 01-04, 2000.

The conference will focus on new developments in the field of spectroscopy and lasers and their applications. The scientific program will include keynote address, invited lectures, and contrib-

uted papers. The poster sessions will be strongly emphasised since they have been found to stimulate the closest interest and very active discussion.

The major topics are : Laser Spectroscopy, Atomic & Molecular Spectroscopy, Vibrational Analysis and Molecular Structure, Microwave Spectroscopy, Conventional Optical Spectroscopy (high and low resolution), New Developments in IR-Radiation sources and Lasers, Laser Materials, Laser Applications in Industry, Biology & Medicine, Fundamental Laser Biophysics & Biochemistry, Vibrational spectroscopy of Molecules, Spectroscopy of Metal Complexes, Time resolved studies of Macro and Biomolecules, Optics and Spectroscopy of Chiral Biomolecules, Light scattering from macromolecules, membranes, cells and tissues, Computer simulation and Theoretical Studies of Biomolecules and Macroscopic Systems, Environmental biodeterioration and survival of materials in biogeological stressed situations, Archaeological and art applications, and Theoretical Methods, New Techniques and other Related topics.

The scientists who have agreed to give invited talks include W. Kiefer (Germany), S. Turell (France), Xen (Singapore), S. Lee (Hongkong), H.G.M. Edwards (UK), and Th. Theophanides (Greece).

Further information may be had from Dr. A. Savarianandam, Convenor, INCOLA-2000, Department of Physics, St. Joseph's College, Tiruchirappalli-620 002, India.

Sensitising Students to Rural Problems

Students of all 13 universities in Andhra Pradesh are proposed to be roped in by the state government

for preparing micro-level plans in an estimated 45,000 rural habitations and nearly 4,000 municipal wards in the state.

Teams of students will spend one week each in habitations between January 2 and 8 in synchrony with the Janmabhoomi programme conducting household surveys, prioritising the local needs, finalising micro plans and getting them approved by the habitation committees. They will be given suitable academic credit for their work by universities while funds will be provided by the government.

These micro-level plans will focus on literacy, health and development of infrastructure for a period of five years taking into consideration locally-available natural resources and the financial capacity of each habitation. The plans will be suitably integrated into Vision 2020 document after consolidation of the massive document with a specified time frame. This ambitious programme was recently outlined by the Andhra Pradesh Chief Minister, Mr. N. Chandrababu Naidu, at a meeting with university Vice-chancellor in Hyderabad M.Phil and Ph.D. scholars, post-graduates and students of final year degree, engineering, medicine and agriculture besides senior polytechnic students would be involved in the programme in districts placed under the jurisdiction of each university.

About five weeks' time has been given to universities to prepare themselves for the massive task ahead. They are required to complete the formation of teams and interact with District Collectors by December 7. Mandal Revenue Officers and Municipal Commissioners have been made responsible for providing boarding and lodging for resource per-

sonnel and students and the APSRTC for arranging transport. An elaborate programme has been chalked out for training resource persons between December 12 and 24.

Mr. Naidu constituted a high-level committee headed by the Chief Secretary, Mr. V. Ananda Rau, to finalise the modalities of the entire programme. He asked Planning Department officials to seek inputs from external agencies like the UNDP and M/s McKinsey & Co, management consultants, besides the National Institute of Rural Development (NIRD).

The Chief Minister wanted the students' teams visiting habitations to interact with local self-help groups like Mothers' Committees and Water Users' Associations while preparing the plan documents. Once the plans and targets were ready, the Government would create a web-site giving a quarterly report of the achievements. During the conference, Mr. Naidu, Mr. Ananda Rau and the Vice-chancellors frequently referred to the Chinese model of sensitising students to problems and priorities of villages.

Mr. Chandrababu Naidu impressed upon Vice-chancellors to encourage research on government's policies and programmes such as the population policy, Chaitanyam, Mundadugu and Aadarna. He felt universities were functioning in isolation and not using their resources for the benefit of the administration or improving the people's lot. Urging them to restructure their courses in tune with the manpower requirements, he said they must also raise money by offering consultancy to industries. He said he would himself address students in different universities about the demands of the next millennium's knowledge society.

Challenges of Education

The Karnataka State Open University, Manasagangotri, Mysore (KSOU) recently organised a symposium on "*Challenges of Education — Yesterday, Today & Tomorrow.*" Prof. S.N. Hegde, Vice-Chancellor, Mysore University, presided while Dr. N.S. Ramegowda, Vice-Chancellor, Karnataka State Open University, delivered the key-note address and introduced various issues to be discussed in the symposium. Padmabhushana Prof. C.D. Narasimhaiah, Director, Dhvanyaloka, presented a paper on the Educational scene of Yesterday. He brought-out the quality of education during the ancient period and called upon the intellectual class to do introspection regarding the past. He said successive historians have kept generations out of touch with reality by writing about the life and times of great rulers and leaders, while neglecting the life and culture of common man. The younger generation should be imparted knowledge in the fields of ancient philosophy, literature and culture. He stressed the need to appreciate educational norms and standards from time to time, draw attention to the "brain rot" in the country and win attention to the "study of classics".

Prof. P. Venkataramaiah, former Vice-Chancellor of Kuvempu University presented a paper on Challenges of Education-Today with special reference to formal education at the tertiary level. He said, though there was quantitative improvement in higher education, people were not satisfied with the quality of higher education in our country. Therefore, quality assurance becomes one of the primary needs of the time.

He hoped that, the establishment of the National Accreditation and Assessment Council will bring in some sort of quality assurance

among higher education institutions.

Prof. B. Sheikh Ali, former Vice-Chancellor of Mangalore and Goa Universities suggested the need for an alternative system of education which would not only reflect the Indian traditions but also cater to large number of youth who were deprived of entry into formal higher educational institutions. He suggested liberalisation of rules of admissions for higher education accompanied by an open and broad outlook on higher education and stressed the need for establishment of Open Universities and similar distance educational institutions to provide mass education at the tertiary level.

Open University Vice-Chancellor, Dr. N.S. Ramegowda referred to the entrance examinations conducted by various universities and noted that these needed to be continued until quality and confidence were achieved in the present education system. He said that the various policies promulgated in the field of education should reflect ground realities.

He voiced the need to have a coordinating agency to create concern and link the schools, colleges and the universities to ensure quality education.

Prof. Chidanande Gowda, Professor of Computer Science, Sree Jayachamarajendra College of Education, Mysore, spoke on the technological advancement and presented an effective scenario of both communication and information technologies. He explained the potentialities of the technologies and their use in the field of education. He was very positive that the new technologies could be used fruitfully for effective learning. He talked about interactive television, computer based instruction, the electronic 'T' shirt and the latest innovations.

Prof. C. Sheshadri, former Principal of Regional Institute of Education and UNESCO expert on primary education, however cautioned against the dangers of over-use of technology. He said, after-all, technologies were man made and without human element no technology will work effectively.

Seminar on Developmental Communication

The Department of Home Science Extension and Communication, Faculty of Home Science, M.S. University, Baroda plans to organise a National Seminar on Developmental Communication — Issues and Challenges on January 27-29, 2000.

The seminar aims at helping teachers of departments of home science and agricultural extension, social work, human development and family studies and all others engaged in development work to plan effective communication strategies for developmental programmes and promote sustainable development. The themes proposed to be taken up include : I. Developmental communication, Sustainable development — concepts, needs and significance in Indian context; II. Planning communication strategies for development — Issues and Challenges; III. Participatory approach in developmental communication; IV. Research on communication strategies for programmes of literacy, adult/and non-formal education, health and nutrition, environment education, poverty alleviation, agricultural innovation, family life improvement, women's development and rural development.

Media developed by development practitioners, academicians and students will be displayed/projected for the participants.

Further details can be had from Dr. Uma Joshi, Director of Seminar on Developmental Communication, Dept. of Home Science Extension & Communication, Faculty of Home Science, M.S. University of Baroda, Vadodara-390 002.

RML Varsity Silver Jubilee

To celebrate the silver jubilee anniversary of Dr. Ram Manohar Lohia Avadh University, Faizabad, the Gyan Institute of Management and Technology (GIMT) organised a seminar on the theme 'HRD — The experience of the past and challenges of the future'.

The seminar was inaugurated by Vice-Chancellor of the RML University, Professor G.C. Saxena, while Secretary, Technical Education, Mr. Ram Singh was the guest of honour.

Speaking on the occasion, associate professor, ICCMRT, MA Usmani said that in the present scenario, the human resource development was the most important aspect. He said the HR was the only active resource in an organisation, while other resources were passive.

Prof. Usmani pointed out that being the only active resource, the HRD mobilised the other passive resources which further helped the organisation to attain its goals. He said that the pertinent question was whether there should be changes in HRD management in the coming century or not. He said that after 1950s, there had been remarkable progress in the HRD management. Prof. Usmani said that it was only in 1970s when manpower was first recognised as a human resource, a thought was given that it could contribute in it.

He said that these were the reasons that some top companies in the world spent a major portion of their operational cost on the human resource.

Prof. Usmani said that the human resource of any organisation also helped in creating its goodwill.

Referring to few changes in the next millennium, he said that there would be a change in structure of the organisations. The hierarchy would shift and it would be the time of merger and acquisitions. He said that in the next millennium, new types of business would emerge requiring new skills. He said that in the next few years a need to integrate human resource might arise.

Prof. Usmani said that the future managers would have to face new challenges in the coming century, but they should be ready as these challenges would be varied in nature and would be more tough, he added. He said that they must think of creativity in multi-dimensional development of human resource.

Earlier, while inaugurating the seminar, Vice-chancellor of the Avadh University, Prof. G.C. Saxena, said that for being a good orator, a man needed many things. He said that being a good speaker was the most important aspect for a person, but it needs efforts. An inter-college debate and 'antakshari' programme for the students was also organised. About 200 participants from 10 different management institutes participated in the programme. Besides a cultural programme was also organised on the occasion.

World AIDS Awareness Day

Population Education, Adult Education, Continuing Education and Extension Centre of the Gujarat Vidyapith in collaboration with M.D. Samaj Seva Mahavidyalaya recently celebrated the World AIDS Awareness Day. The Director of the

Population Education & Adult Education Centre, Dr. Sandhya Thakar said in her introductory note that there was a big number of HIV positive cases in Gujarat. The alarming consequences of AIDS were still not fully known to the village population. In order to create awareness amongst youth, the Centre had decided to start a telephonic Counselling Service from the next month.

The key note address was given by the Gujarat Health Minister, Shri Ashokbhai Bhatt. He emphatically told that Gandhiji's 9 'Vrats' — *Satya, Ahimsa, Bhramcharya, etc* were very much relevant today. These helped a lot in keeping man away from all diseases. People will have to go for a Gandhian way of life for their survival.

He said that 300 life saving marches were organised for the awareness of AIDS. Gandhian institutions like Jyoti Sangh and others were very active. Pockets of AIDS in women had been identified. He also said that this disease was mainly contemplated because of foreign style of living, only Gandhian *Shaily* can save us from this. The greatest enemy of human life today was AIDS. It is possible to diagnose AIDS, but there is no cure for that. Years before our Ayurvedic medicines had suggested possible remedies against AIDS. The entire society shall have to join hands for the prevention and cure of AIDS.

The Pro-Vice-chancellor of Gujarat Vidyapith, Shri Vinodbhai Tripathi in his presidential address said that all these diseases were the result of modern civilised way of life which was not conducive. We have lost sight of nature. We will have to go back to the nature. A simple life-style as envisaged by Mahatma Gandhi is the only sure way of healthy life, he added.

IATE Conference 1999

M.V. College of Education, (University of Delhi) will play host to the XXXIII National Conference of Indian Association of Teacher Educators (IATE) to be held at Delhi on December 28-30, 1999. "The theme of the conference will be Teacher Education in the Modern Age : Its Dynamics & Dimensions." Some of the major issues concerning Teacher Education like duration of B.Ed. courses, self financing courses (B.Ed.), appointment of teacher educators, (and the question of their salaries) the new curriculum of NCTE and expectations from NCTE are likely to come up for discussion.

Shri Krishen Kant, Vice President of India, and noted Scholar and statesman Dr. Karan Singh, are expected to address the conference.

The organising committee of XXXIII National Conference of IATE has requested Prof. R.P. Singh (New Delhi) to edit and bring out a Year Book on Teacher Education in the Modern Age : Its Dynamics and Dimensions.

Further details may be had from Dr. Gopal Rana, Conference Secretary, XXXIII National Conference, Maharshi Valmiki College of Education (University of Delhi), Maharaja Agrasen Marg, Shakarpur, Delhi-110 092, Fax : 011-2220543, E-mail : sharmaparmesh@hotmail.com

India Education Fund

The Government of India plans to set up an India Education Fund to raise resources to meet the additional financial burden while implementing its educational schemes. The donations to the fund, Secretary, Education, Mr. M. K. Kaw said, can be monetary or in the form of adoption of villages and provision of scholarships. This will enable the society at large to participate in the Government's efforts to provide

education to all, he added. Mr. Kaw was inaugurating a two-day conference of State education secretaries in Delhi. He said the Government planned amending the Constitution to make elementary education a Fundamental Right — a central legislation to provide free and compulsory education to all children up to 14 years of age, steps to increase public investment in education to six per cent of Gross National Product in the next five years, measures to facilitate greater participation of the private sector in education through a more progressive enabling and regulatory framework, a number of legislative and non-legislative measures for eradication of illiteracy and achieving the goal of universalisation of education.

Some of the other measures in this direction disclosed by Mr. Kaw were starting Sarva Shiksha Abhyas for curricular and examination reforms, launching of a dedicated education channel on Doordarshan, reserving slots for educational programmes on FM radio, and expansion of the website of the Education Department and establishing websites of all National education bodies and autonomous institutions.

Mr. Kaw said that for the implementation of these plans, co-operation of the state and government and non-governmental organisations was essential.

Conference on Home Science

Home science education is not confined to strengthening home and family life alone, but it has a broader perspective. Teachers as well as students of home science have a major role to play in building society as well as the nation as it is women who rock the cradle and rule the world. This was the opinion expressed by Mrs. Amarjit Kaur,

former Chairperson, Central Social Welfare Board and Member of Parliament (Rajya Sabha), at the 23rd biennial conference of the Home Science Association of India at Punjab Agricultural University.

Addressing delegates, she said the education of women was of vital importance as it could help curb two major problems the country faced today — illiteracy and population. Attainment of national goals in terms of economic development, strengthening of social infrastructure, gender equality and health for all were to be met. Education of women was a must. And in this context, home science had a significant role to play.

Presiding over the function, Dr. Sukhdev Singh, former Agricultural Commissioner, Government of India and member, Board of Management, PAU said India could not progress unless at least 50 per cent governance was with women. He remarked that history had time and again shown that only those nations had progressed where women were given equal rights with men.

A colourful souvenir entitled "Home Science Education Vision 2020" was released on the occasion.

WHO Fellowships in Sports Medicine

Noted Sports Physician Dr. Jawahar Lal Jain along with Dr. Bashir Mir (Srinagar) & Dr. Tapan Kr. Das (Tripura) have been awarded WHO Fellowship in Sports Medicine. This is the first time that the World Health Organisation had sent doctors on fellowship in Sports Medicine. Dr. Jain during his fellowship had interaction with eminent doctors of America in Sports Medicine at University of Alabama & at Rochester, Minnesota on the latest aspects of sports injuries management.

It may be recalled that Dr. Jain had earlier represented the country as official doctor for Barcelona Olympics-1992 and Commonwealth games at Victoria, Canada in 1994.

Dr. Jain presently works with the World University Service Health Centre at University of Delhi and is a member of Medical Commission of Indian Olympic Association.

international institutes engaged in the field.

Plant genome is considered important for the acceleration of the process of plant improvement, greater assurance of food security, expanded use of plant products and expand the utility and value of crop plants. Understanding the genetic composition of plants and the function of their genes would accelerate traditional approaches to plant improvement by breeding. The plant genome research would not only help in feeding population but also in augmenting economy with renewable resources and sustaining the environmental harmony.

News from Agricultural Universities

Gene Studies Centre

The country's first plant genomic studies centre will be set up in Jawaharlal Nehru University. The centre plans to use genomics to expand the use of plant products and increase the utility and value of crop plants.

The foundation for the centre was recently laid by Union Minister for Science and Technology, Prof. Murli Manohar Joshi. The National Centre for Plant Genome Research is being funded by the Department of Biotechnology, which would provide a grant of Rs. 14.70 crores for the next five years.

The Centre has identified chickpea, a pulse crop, and catharanthus roseus, a medicinal plant, for detailed genomic studies. Dr. Murli Manohar Joshi said, during the foundation ceremony, that plant genomics, plant molecular biology and biotechnology are important for agriculture crops and medicinal plants.

"I hope the Centre would be able to develop improved crops that would be resistant to disease with a high nutritive value and those that could be grown in drought and other adverse conditions," he said. The announcement for setting up the centre was made in November, 1997 to coincide with noted biophysicist Prof. J.C. Bose's birth anniversary.

The genomic centre would also share data, expertise and technical know-how with other institutes in the country and would also undertake various human resource development programmes in the advanced field of plant molecular biology and also collaborative programmes with various

AIU NEWS

East Zone Youth Festival

Sponsored by the Association of Indian Universities (AIU) and the Department of Youth Affairs & Sports, Govt. of India, the East Zone Inter University Youth Festival 1999 was recently organized by Indira Gandhi Krishi Vishwavidyalaya, Raipur (M.P.). The Festival brought together the youth of the eastern part of the country. In all about 515 students from 20 universities participated in this festival, designated as the "Millennium Meet".

The festival was inaugurated by Dr. C.D. Mayee, Vice-chancellor of Marathwada Krishi Vishwavidyalaya, Parbhani. Dr. V.K. Patil, Vice-chancellor of the host university presided over the function, while Dr. Arun Kumar Sen, Ex-Vice-chancellor of Indira Kala Sangeet Vishwavidyalaya, Khairagarh was the Guest of Honour.

Dr. Mayee exhorted the youth to dedicate themselves to the country by shunning all evils and anti national ideas. Quoting a Sanskrit couplet he appealed to the youth to participate in the Festival with sportsman spirit. Dr. Patil lauded the role of Youth Festivals in promoting national and emotional integration.

The topic for Elocution was "The Role of Youth in 21st Century" 16 universities participated. The views expressed by the youth pertained to evils of dowry system problem of unemployment among youth, pollution in terms of cultural, social, mental and environmental aspects, increase in terrorism and violence in our day to day life, economic problems, lack of health facilities and lack of cultural consciousness among elite and rural masses. Many a participant viewed that the problems high-

lighted were not so acute, citing different examples and quotes from Swami Vivekanand, Thomas Jefferson etc.

11 participants from different universities competed in Cartoon and Poster competition. Political instability, corruption, cyclone tragedy, youth dreams and glimpses of Chhattisgarh were some of the topics covered by the students.

The topic for the Debate was 'Coalition Government Without Homogenous Ideology is Harmful for the Nation'. A few of the participants viewed that homogenous ideology was not important while common thoughts and feelings played a dominant role in formation of a coalition government. Success stories of coalition governments in different parts of the world, like France, Germany etc, were cited as examples. Other participants were of the view that coalition government with common ideology was suitable for developed countries only and not for developing countries, like ours.

Thirteen universities participated in the Skit competition. Vinoba Bhave University, Hazaribagh presented "Kate Haath" on the theme of unemployment, while Bidhan Chandra Krishi Vishwavidyalaya, Mohanpur highlighted religious in fighting; Visva Bharati, Santiniketan presented a skit with the title 'Maa Hum Betay Tumharay' which focused on national integration. The burning topic of patents, was covered by Bhagalpur University while level of corruption which has entered in our society was highlighted by Manipur University. The humorous skit on 'Dulha Bikta Hai' was presented by Mahatma Gandhi Gramoday Vishwavidyalaya. Rabindra Bharati University viewed that non violence was dominant in our society. Banaras Hindu University

and Purvanchal University presented 'Kutte Ki Punchh' and 'Muskan Ki Dukan' respectively. While the former stressed political instability and corruption prevailing in our country, the latter viewed that every thing was on sale in the country.

In all 11 universities participated in Mime. The themes presented related to corruption, patriotism, sympathy with handicapped, super cyclone in Orissa domination of Robot on man. Hooliganism, Atomic Energy etc.

The folk dance items were presented by 10 universities. The presentation of 'Katni Dance' by Tilka Manjhi Bhagalpur University, 'Karma' by Guru Ghasi Das University; 'Rangobati-Rangobati' by Berhampur University; 'Bhojpuri' by Purvanchal University; 'Gheri' by Mahatma Gandhi Gramoday Vishwavidyalaya; 'Haiy-o-Ruba' dance by Manipur University; 'Gedi' by Indira Gandhi Krishi Vishwavidyalaya; 'Bau' by Vidyasagar University; 'Nepali Folk Song based on Dance' by Bidhan Chandra Krishi Vishwavidyalaya; 'Naga Dance' by Vinoba Bhave University; 'Beha' by Awadhesh Pratap Singh University; 'Chhau' by Banaras Hindu University and 'Baramasi Dance' by Pt. Ravi Shankar Shukla University were appreciated by the audience.

The Quiz Competition was conducted by Dr. R.N. Ganguli. The youth of Banaras Hindu University proved to be excellent in their knowledge and they stood first in the competition. Visva Bharti University and Vinoba Bhave University were second and third respectively.

RESULTS

I. Music

a) Classical Vocal

- i) Rabindra Bharati, Calcutta

- ii) Purvanchal University, Jaunpur

- iii) APS University, Rewa
BHU, Varanasi

b) Light Vocal

- i) Visva Bharati, Santiniketan

- ii) Rabindra Bharati, Calcutta

- iii) Purvanchal University, Jaunpur

Vidyasagar University, Midnapur

c) Western Vocal (Solo)

- i) Manipur University, Imphal

- ii) Vinoba Bhave University, Hazaribag

- iii) Assam University, Silchar

d) Western Vocal (Group)

- i) Manipur University, Imphal

- ii) APS University, Rewa

- iii) Vinoba Bhave University, Hazaribag

e) Classical Instruments (Percussion)

- i) Rabindra Bharati, Calcutta

- ii) BHU, Varanasi

- iii) Visva Bharati, Santiniketan
Vinoba Bhave University, Hazaribag

f) Classical Instruments (Non-percussion)

- i) Rabindra Bharati, Calcutta

- ii) BHU, Varanasi

- iii) Visva Bharati, Santiniketan
Manipur University, Imphal

g) Indian Group

- i) Vidyasagar University, Midnapur

- ii) Purvanchal University, Jaunpur

- iii) Manipur University, Imphal
BHU, Varanasi

Overall Champion : Rabindra Bharati University, Calcutta

II. Dance

a) Classical

- i) Manipur University, Imphal
- ii) Vinoba Bhave University, Hazaribag
- iii) Berhampur University, Berhampur

b) Folk

- i) Vidyasagar University, Midnapur
- ii) Manipur University, Imphal
- iii) Indira Gandhi Krishi Vishwavidyalaya, Raipur
- Purvanchal University, Jaunpur

Overall Champion : Manipur University, Imphal

III. Theatre

a) One Act Play

- i) Rabindra Bharati, Calcutta
- ii) Indira Gandhi Krishi Vishwavidyalaya, Raipur
- iii) Awadesh Pratap Singh University, Rewa
- Banaras Hindu University, Varanasi

b) Skit

- i) TM Bhagalpur University, Bhagalpur
- ii) Rabindra Bharati, Calcutta
- iii) Manipur University, Imphal

c) Mime

- i) Rabindra Bharati, Calcutta
- ii) Indira Gandhi Krishi Vishwavidyalaya, Raipur

- iii) TM Bhagalpur University, Bhagalpur

Vidyasagar University, Midnapur

d) Monoacting

- i) Visva Bharati, Santiniketan
- ii) Vinoba Bhave University, Hazaribag
- iii) Berhampur University, Berhampur

e) Mimicry

- i) Banaras Hindu University, Varanasi
- ii) M.G.G.V.V., Chitrakut
- iii) APS University, Rewa
- TM Bhagalpur University, Bhagalpur

Overall Champion : Rabindra Bharati, Calcutta

IV. Literary

a) Debate

- i) Guru Ghasi Das University, Bilaspur
- ii) Pt. Ravishankar Shukla University, Raipur
- iii) Awadhes Pratap Singh University, Rewa

b) Quiz

- i) Banaras Hindu University, Varanasi
- ii) Visva Bharati, Santiniketan
- iii) Vinoba Bhave University, Hazaribag

c) Elocution

- i) TM Bhagalpur University, Bhagalpur
- ii) Assam University, Silchar
- iii) Pt. Ravishankar Shukla University, Raipur

Consolation : Vinoba Bhave University, Hazaribag

Overall Champion (Joint) : Guru Ghasi Das University, Bilaspur and BHU, Varanasi

V. Fine Arts

a) Cartooning

- i) BHU, Varanasi
- ii) Rabindra Bharati, Calcutta
- iii) MGGVV, Chitrakoot

b) On-the Spot Painting

- i) Berhampur University, Berhampur
- ii) BHU, Varanasi
- iii) Rabindra Bharati, Calcutta

c) Collage

- i) Manipur University, Imphal
- ii) Pt. Ravishankar University, Raipur
- iii) BCKV, Mohanpur

d) Clay Modelling

- i) Rabindra Bharati, Calcutta
- ii) BHU, Varanasi
- iii) Berhampur University, Berhampur

e) Rangoli

- i) Assam University, Silchar
- ii) IGKV, Raipur
- iii) Pt. Ravishankar University, Raipur

f) Poster Making

- i) Assam University, Silchar
- ii) Manipur University, Imphal
- iii) TM Bhagalpur University, Bhagalpur

Overall Champion (Joint) : BHU, Varanasi and Assam University, Silchar

Overall Champion of the East Zone Inter University Youth Festival (Millennium Meet) : Rabindra Bharati University, Calcutta.

News from UGC

Countrywide Classroom Programme

Between 20th December to 26th December, 1999 the following schedule of telecast on higher education through INSAT-1D under the auspices of the University Grants Commission will be observed. The programmes are telecast on the Doordarshan's National Network from 9.30 to 10.00 a.m. every day except on Saturdays & Sundays. These programmes are also telecast on Doordarshan's National Network from 6.00 to 6.30 a.m. on all days of the week. On DD2 International Programme will be shown at 11.00 to 12.00 hours on Saturdays only.

20.12.99

"Y2K—Year 2000 Problem-2"
"Gravimetric Estimation of Barium"
"River Journal-4 : French Chandernagore"
"Vasundhara : Siberian Cranes"

21.12.99

"Egypt & its Monuments"
"भूकम्प"
"River Journal-5 : The Danes of Seranpare"
"Vasundhara : Sacred Grove"

22.12.99

"Feeling Good-15"
"Plastination : The Art of Immortalizing"

"Laamei Pollai"

"Artificial Spawning in Frog"

23.12.99

"Role Model : Mahashweta Devi : The Voice of the Voiceless"
"Question Time-122"
"The Repository of Indian Heritage Burhanpur"

24.12.99

"Functional English-6"
"Concept of Communication"
"The Samanthas — An Anthropovision"
"Magician of the Earth"

25.12.99

"Making of a Dancer : Bharatanatyam"

26.12.99

"Sense of Tune"
"Touch of Genius"



NATIONAL LAW SCHOOL OF INDIA UNIVERSITY

NAGARBHAVI, POST BAG NO. 7201, BANGALORE-560 072

ADMISSION TO THE UNDERGRADUATE AND POSTGRADUATE (LL.M.) PROGRAMME FOR 2000-2001 SESSION

The National Law School of India University (NLSIU) is a premier Residential Law University in the country. The applications for admission to its Undergraduate and Postgraduate (LL.M.) programme for 2000-2001 are invited.

I. Undergraduate Programme : The University offers a Five year integrated B.A., LL.B. (Hons.) Degree Programme preparing students for the Bar and varied other careers in Law, (a) **Eligibility :** 10+2 School Examination or equivalent with not less than 50% marks; (students taking qualifying examination in March/April 2000 are also eligible to apply);

(b) **Age Limit :** Below 20 years as on 1st July, 2000 (22 years in case of SC/ST candidates);

(c) The Annual Tuition fee is Rs. 25,000/-. Financial assistance/Fee waiver/Scholarship is available in deserving cases.

(d) Copies of the last eleven years' Test papers in a volume are available. The same can be had by sending Bank Draft for an amount of Rs. 350/- inclusive of postage for the same.

II. Postgraduate (LL.M.) : LL.M. is a two year Postgraduate degree programme (4 semesters) Specialization in Business Law, Public Law, International Law, Personal Law, Criminal Law, Human Rights Law and Environmental Law are available.

Minimum qualification is 50% aggregate in BL/LL.B./BA., LL.B. examination. Candidates appearing for final examinations this year, are also eligible to apply. Semester fee payable is Rs. 15,000/-. Fee waiver on the basis of parental income and some teaching assistantship from Rs. 1500-2000 per month is also available in deserving cases.

Admissions for the above two programmes are based purely on merit, assessed at the All India Admission Test to be held on Sunday, 7th May, 2000 at Bangalore, Chennai, Delhi, Mumbai, Kochi, Hyderabad and Calcutta. All admissions will be completed on or before 30th June. Classes begin on 1st July, 2000.

For Application and Bulletin, write to the Registrar with a Bank Draft for Rs. 200/- payable to the NLSIU at Bangalore. Applications will be issued from 1st January to 1st March, 2000. Last date for receipt of completed Applications is 15th March, 2000.

Admissions to the Distance Education Programmes and other Postgraduate programmes will be advertised separately.

REGISTRAR



INDIAN INSTITUTE OF FOREST MANAGEMENT

(An Autonomous Institute under Ministry of Environment & Forests, Government of India)

ADMISSION ANNOUNCEMENT FOR THE VIII BATCH OF M.PHIL. PROGRAMME IN NATURAL RESOURCE MANAGEMENT-2000-2001 (One year Full-time Residential Course for In-service Professionals)

THE INSTITUTE

The Indian Institute of Forest Management (IIFM) was established as an autonomous Institution in 1982 by the Ministry of Environment and Forests, Government of India. The Institute aims at developing managerial capacity for the management of forest ecosystem which is the foundation of equitable and sustainable development of life support systems. The Institute is an apex organisation in the field of forest management. The Postgraduate Programme in Forestry Management (PFM), and the M.Phil. in Natural Resource Management, both are recognised by the Association of Indian Universities as being equivalent to Master's and M.Phil. degree respectively. The Management Development Programmes of IIFM are well received by the client organisations. IIFM undertakes research and consultancy assignments which greatly enrich the faculty.

THE M.PHIL. PROGRAMME

The course is designed for Indian and Foreign participants interested in the sustainable development of forest ecosystem and the environment. The course is designed for middle level professionals and personnel working in Government, Non-government, Research and Teaching organisations. A maximum of 20 (twenty) candidates are enrolled in this course. The course duration is June 15, 2000 to May 31, 2001.

ELIGIBILITY

A candidate must have at least a two years Master's Degree or equivalent degree/diploma (recognised from a University/Institute) with high second class, i.e., 55% for general candidates and 50% for reserved category, in any subject of knowledge. Candidates having working experience in forestry, environment and related field will be given preference for admission in MRM course. The candidate must be sponsored by their employer with the confirmation that the candidate's present job will continue after the completion of the course. It is expected that the candidate is fluent in written and spoken English language, as the language of instruction is English.

APPLICATION PROCEDURE

To receive an application form and other details please send a request alongwith a self-addressed stamped (worth Rs. 12/-) envelope (for Indians only) of sized 7" x 9.5" and the application fee of Rs. 250 (Rupees two hundred and fifty) through demand draft in favour of Director, IIFM, payable at Bhopal.

There is no application fee for Foreign Nationals and candidates from SAARC.

Programme fee :	For Indian Nationals	:	Rs. 10,000
	For SAARC Candidates	:	US \$ 1000
	Other Foreign Nationals and Non-resident Indians (NRI)	:	US \$ 5,000

The Programme fee is applicable only to candidates selected for admission. The programme fee is to be paid in lumpsum at the time of registration in the Programme. This includes tuition fee, hostel-room rent, charges for electricity, water, field visits, computer, library facilities, etc except the expenses towards meals.

SELECTION PROCEDURE

Besides fulfilling the minimum eligibility criteria, the candidate will have to go through a selection process comprising of Seminar and Personal Interview or as decided by the Institute. Fulfilling the minimum eligibility criteria does not guarantee candidate's admission to the course.

Please address all correspondence to :

Coordinator — MRM Admissions,

INDIAN INSTITUTE OF FOREST MANAGEMENT,

Post Box No. 357, Nehru Nagar, Bhopal-462 003 (M.P.) India

Tel : 775716, 775998

FAX : 0755-772878, Gram : 'FORMAN'

E-mail: -deep@iifm.org, mrm@iifm.org

Internet Home Page : <http://www.iifm.org>

LAST DATE FOR RECEIVING THE COMPLETED APPLICATION FORM IS 31ST MARCH 2000.

BOOK REVIEW

A "Source Book" for Teachers

Marjorie Fernandes*

R. Seetharam (Ed.), *Becoming a Better Teacher*. Chennai, Academic Staff College, University of Madras, 1998. Pp. viii+186. Price : not listed.

Academic Staff Colleges have been established at various universities in India since 1987-88 to provide two types of short-term training courses to enable teachers in higher education to perform their role effectively. One is the General Orientation Course designed for new entrants into the profession while the other is the Refresher Course designed for updating the knowledge of the teacher in his/her discipline from time to time. The book under review is meant to serve as a "source book" i.e. to provide reading material for the former type of course. It is a collection of 30 articles covering a number of important issues to which a fresh recruit into the teaching profession at the higher education level needs to be oriented.

The articles cover a variety of topics many of which relate to specific aspects of the teacher's functioning while others are of a general nature to provide relevant information to the teacher. Thus, seven articles : Nos. 7-13 ("Instructional Methodology for Higher Learning" by S. Swaminatha Pillai; "Instructional Skills" by P. Arun Kumar; "Transforming of Teaching Methods for Higher Education" by P.S. Balasubramanian; "Lecture Technique of Teaching" by A. Panneerselvam; "Planning for Instruction" by A.A. Ramachandran; "Individualized Instruction" by G. Sudhakar; and "Media and Communication in the Classroom" by A.

Panneerselvam) deal with classroom instruction, although there is not much coordination between the articles. One fairly comprehensive article : No. 14 ("Evaluation and Question-Paper Setting" by M.R. Santhanam) relates to various aspects of student evaluation. Three articles : Nos. 6, 27 and 28 ("College Development and Management : Teacher Participation" by M. Raghuram Singh; "Action Research" by P.S. Balasubramanian and "Extension in Higher Education" by Rajani R. Shirur) help to clarify how the functions of administration/management, research and extension respectively can be meaningfully performed by teachers. Eight articles Nos. 4, 5, and 16-21 ("Towards Motivation Enhancement" by S. Lakshmi; "Creativity in Teaching" by S. Sathik; "Imparting Values in Higher Education" by S. Muthukumaran; "Teacher-Student Relations" by B. Mukhopadhyay; "Value Education" by Fr. P.P. George; "Student Discipline" by C.L. Ramakrishnan; "Stress Management" by K.V. Kaliappan and "Assertive Behaviour" by K. Senthilathiban) relate to the psychology/behaviour of students and/or teachers. Some relatively recent problems faced by society and some relatively new trends in higher education are discussed in article Nos. 23-24 ("Drug Abuse — A Social Problem" by P. Madhava Somasundaran and "Pollution — A Challenge to Human Life" by S. Muthukumaran) and 25-26 ("Vocationalization of Education" by Armaity S. Desai and "Community College : Origin and Concept" by M. Ramadass) respectively. Five

articles : Nos. 1-2, 15, 22 and 29 ("Social Linkages and Higher Education" by R. Jayagopal; "Towards Excellence in Higher Education" by C.V. Chittibabu; "Systems Approach to Education" by R. Seetharam; "Total Quality Management in Education" by P.K. Doraiswamy and "Futurology of Education" by E.G. Vedanayagam) take an overview of the higher education system. Finally, an extract of Herbert C. Friedmann's "Fifty-Six Laws of Good Teaching" appears as the last entry in the book.

An editorial article indicating the relevance and the sequence of the various articles included in the book would have made it more useful for the reader. The 30 articles expose the reader to the views of a large number of contributors, almost all of whom are from Tamil Nadu. However, the choice of articles on a particular issue seem to have been determined to some extent by the availability of contributors rather than the relative importance of the issue vis-a-vis other issues in higher education. Consequently, some important issues do not find a place in the book — for example, self-evaluation of teachers as a basis of their professional and career development, women and disadvantaged groups like SC/ST in education, higher education scenario in India, role of higher education in national development and social change, etc. References which enable the teacher to follow up his/her reading on matters discussed in the articles are listed at the end of some of the articles but are missing for others. Considering the lack of easily available reading material for the general orientation of teachers, the book in its first edition has certainly met a felt need to a considerable extent and hence the editor needs to be commended for bringing it out. It is hoped that the next edition of the book will be even more useful than the present one and will be brought out soon. □

*Deptt. of Economics, Janki Devi Mahavidyalaya (University of Delhi), New Delhi-110 060.

THESES OF THE MONTH

A list of doctoral theses accepted by Indian Universities (October-November 1999)

AGRICULTURAL AND VETERINARY SCIENCES

Vegetable crops

1. Dhobhal, Vijay Kumar. Studies on neterosis and genetic analysis for some quantitative and quality traits in tomato. (Dr U K Kohli), Department of Vegetable Crops, Dr Yashwant Singh Parmar University of Horticulture and Forestry, Solan, HP.

Fruit Breeding

1. Singh, Dinesh. Present status of apple pollinizers in Kullu valley and its impact on productivity. Department of Fruit Breeding, Dr Yashwant Singh Parmar University of Horticulture and Forestry, Solan HP.

BIOLOGICAL SCIENCES

Biology

1. Shaheed, Jas Kiran Kaur. Transfection of non-melanocytic cells with tyrosinase gene constructs for survival studies. Department of Life Sciences, Punjabi University, Patiala.

2. Tiwari, Bhavna. Regulation of the rat lamin A gene : Analysis of the 5' proximal promoter. (Dr Veena K Parnaik), Department of Cellular and Molecular Biology, Jawaharlal Nehru University, New Delhi.

Botany

1. Agrawal, Jyoti. The study of the vam fungi in some forest tree species. (Dr Ugam Kumari Chauhan), Department of Life Sciences, Awadesh Pratap Singh University, Rewa

2. Azad, Shamim Ahmad. Studies on induced mutations in mungbean. (Dr Badar A Siddiqui), Department of Botany, Aligarh Muslim University, Aligarh.

3. Deka, Dinesh Chandra. Studies on the cytotoxic effects of certain organo phosphorous insecticides on some crop plants. (Dr S P Bora), Department of Botany, Gauhati University, Guwahati.

4. Deka, Prativa. Ferns of Assam. (Dr S K Borthakur), Department of Botany, Gauhati University, Guwahati.

5. Dube, Shardha. Toxic metals and pesticides dynamics in ecosystem components in cement zone. (Dr P S Dube), Department of Botany, Vikram Vishwavidyalaya, Ujjain.

6. Dwivedi, Chandra Pal. Studies on the mycoflora of Barhi Forest Range, Jabalpur. Department of Botany, Rani Durgavati University, Jabalpur.

7. Madhuri, G. Anthocyanin pigmentation in rice (*Oryza sativa* L) : Towards genetic engineering of the pathway of improved stress resistance. (Prof A R Reddy), Department of Life Sciences, University of Hyderabad, Hyderabad.

8. Rao, Anupam Srinivas. Microfungi of adilabad forest Andhra Pradesh. (Prof Vasant Rao), Department of Botany, Osmania University, Hyderabad.

9. Tripathi, Laxmikant. Impact of flyash on microbial community soil and water in Singrauli Region. (Dr Ugam Kumari

Chauhan), Department of Life Sciences, Awadhesh Pratap Singh University, Rewa.

10. Vasantha, A. Studies on leaf-spot disease of jasmine caused by *pseudomonas viridiflava*. (Prof V Thirupathiah), Department of Botany, Kakatiya University, Warangal.

Microbiology

1. Mehmood, Zafar. Studies on antimicrobial properties of some India medicinal plants. Department of Microbiology, Aligarh Muslim University, Aligarh.

2. Reddy, P Rama Mohan. Production of thermostable B-amylase and pullulanase by *clostridium thermosulfurogenes* Sv2. (Prof G Seenayya), Department of Microbiology, Osmania University, Hyderabad.

Zoology

1. Choubey, Kanti. Co-relative study between sex ratio of human new borns and the pre natal epoch position of the moon and ascendant of the horoscope. Department of Zoology, Rani Durgavati Vishwavidyalaya, Jabalpur.

2. Motupalli Lakshmi Vani. In vivo and in vitro effect of fluoride on certain enzymes of brain and gastrocnemius muscle of mice. (Dr K Pratap Reddy), Department of Zoology, Osmania University, Hyderabad.

3. Satyanarayana, D. Studies on smooth coated otter (*Lutra perspicillata*) in two ecologically different habitats in South India with special emphasis on conservation. (Dr V Nagulu), Department of Zoology, Osmania University, Hyderabad.

4. Sharma, Roli. Pathological and enzymological changes in midgut of *B Mori* (L) due to bacterial flacherie. Department of Zoology, Vikram Vishwavidyalaya, Ujjain.

5. Vyas, Madhu. Studies on the commonly available snakes of Malwa region of Madhya Pradesh including ecobiology and development of *xenochrophis plascator* (schneider). Department of Zoology, Vikram Vishwavidyalaya, Ujjain.

ENGINEERING SCIENCES

Biotechnology

1. Kanti, Rajat. Effect of different plant nutrients, role of phosphorus and plant densities on the growth, nodulation yield of groundnut (*Arachishypogaea*) in the midaltitude of Meghalaya. (Prof S Sarma), Department of Biotechnology, Gauhati University, Guwahati.

Mechanical Engineering

1. Sunand Kumar. Process design, maintenance planning and resource allocation in the process industries. Department of Mechanical Engineering, Kurukshetra University, Kurukshetra.

MATHEMATICAL SCIENCES

Mathematics

1. Joseph, Jojy. Some geometric features of univariate and bivariate splines. Department of Mathematics, Rani Durgavati Vishwavidyalaya, Jabalpur.

2. Rao, Srinivasa B. Special types of integress in certain second order recursive sequences. (Prof V Sivarama Prasad), Department of Mathematics, Osmania University, Hyderabad.

MEDICAL SCIENCES

Pharmacy

1. Choudhari, Janardan Vitthalrao. Pharmaceutical studies on some natural foodgrains as excipient. (Dr D M Brahmanekar), Department of Pharmacy, Nagpur University, Nagpur.

2. Deshmukh, Abhijit Mukund. Design and evaluation of new drug delivery system for buccal absorption. (Dr A K Dorle and Dr S B Joshi), Department of Pharmacy, Nagpur University, Nagpur.

PHYSICAL SCIENCES

Biochemistry

1. Afaq, Farrukh. Role of glutathione in mineral fiber toxicity. (Dr Qayyum Husain), Department of Biochemistry, Aligarh Muslim University, Aligarh.

2. Khan, Najmuddin Mohd. Interaction of ligands with serum albumins of different species. (Dr Mashiat Ullah Siddiqui), Department of Biochemistry, Aligarh Muslim University, Aligarh.

3. Sangeetha. Effects of respiratory infection on riboflavin metabolism. (Dr A V Lakshmi), Department of Biochemistry, Osmania University, Hyderabad.

4. Venkatesh, S G. Purification and characterization of iodoproteins from camel thyroid. (Dr Vijay Deshpande), Department of Biochemistry, Osmania University, Hyderabad.

5. Vinod Kumar C. Biochemical changes in the sorghum plant under iron deficiency. (Prof G Venkateshwerlu), Department of Biochemistry, Osmania University, Hyderabad.

Chemistry

1. Baruah, Litoal. Studies on clay minerals in reservoir sands of lakwa oil fields. (Prof I Haque and Prof T Katakya), Department of Chemistry, Dibrugarh University, Dibrugarh.

2. Baruah, Rekha. Spectroscopic and electrochemical studies on copper and cobalt complexes of tetradentate schiff bases and macrocyclic legands encapsulated in surfactant micelles. (Prof O K Medhu), Department of Chemistry, Osmania University, Hyderabad.

3. Borah, Parinita. Chemical transformations of steroids towards the preparation of steroidal drug and drug intermediates hormones and some anaseco steroids. (Dr P K Chowdhury and Dr B C Goswami), Department of Chemistry, Gauhati University, Guwahati.

4. Chakraborty, Manojit. Studies on dicoordinated organic sulphur compounds : Sulphenylation reaction with 2' - Nitro -4' azobenzene 2 - sulphenyl bromide. (Prof S K Bhattacharjee), Department of Chemistry, Gauhati University, Guwahati.

5. Choudhury, Bhaskar Kumar. Alkaline hydrolysis of benzoic acid esters studies of dependence of the effect of alcohol component and ring substituent on solvent and temperature. (Dr D C Deka), Department of Chemistry, Gauhati University, Guwahati.

6. Jagadeesh S G. Synthesis of oxygen heterocyclics and chemical examination of some indigenous plants of physiological interest. (Prof G Srimannarayana), Department of Chemistry, Osmania University, Hyderabad.

7. Rajendran, V. Synthesis of fumonisin-B1. (Dr A V Rama Rao), Department of Chemistry, Osmania University, Hyderabad.

8. Rao, Sampath P. Synthesis of some new furano compounds as potential antifeedants. (Dr D Ashok), Department of Chemistry, Osmania University, Hyderabad.

9. Rather, Manzoor Ahmad. Synthesis and physico-chemical studies of transition metal complexes involving N & S donor moieties. (Dr Tahir Ali Khan and Sir Ziauddin), Department of Chemistry, Aligarh Muslim University, Aligarh.

10. Sahasrabuddhey, Bhushan. Sample preparation by solid phase extraction for HPLC. Department of Chemistry, Rani Durgavati Vishwavidyalaya, Jabalpur.

11. Sarkar, Sanjita. Total synthesis of mappicine ketone and its analogues as antiviral agents. (Dr J S Yadav), Department of Chemistry, Osmania University, Hyderabad.

12. Sitaramaiah, D. Total synthesis of megapodiol and (-) epilachnadiene. (Dr A V Rama Rao), Department of Chemistry, Osmania University, Hyderabad.

13. Venkateshwarlu, K Ch. Metal ion-catalysed oxidation of organic compounds by ceric salts. Department of Chemistry, Osmania University, Hyderabad.

14. V V S Ramakrishna. Neutron activation analysis of heavy metal toxic pollutants in environmental system. (Dr A N Garg), Department of Chemistry, Nagpur University, Nagpur.

Physics

1. Badwaik, Dilip Shankarrao. Ultra sonic investigation of some thermotropic liquid crystals. (Dr Vilas A Tabhane), Department of Physics, Nagpur University, Nagpur.

2. Baishya, Runima. Studies on some important characteristic of radioemission from large ees. (Dr Prafnayee Datta), Department of Botany, Gauhati University, Guwahati.

3. Chandramohan R. Studies on electro synthesised Zn Cd Se semi-conducting thin films. Department of Physics, Alagappa University, Karaikudi.

4. Dayanand, C. Structural (IR, optical and ESR) investigations on xpcO-(ix) P205 (lead phosphate) MN2 vitreous system. (Prof M Salagram), Department of Physics, Osmania University, Hyderabad.

5. Deka, Paramananda. A study on nonlinear interaction of waves through plasma maser effect. (Dr S Bujarbarua), Department of Physics, Gauhati University, Guwahati.

6. Mishra, Ravi. Hydrogeological studies around Rewa city with special reference to ground-water pollution. Department of Physics, Vikram University, Ujjain.

7. Pandey, Devendra Kumar. Studies on fluctuation phenomena in point contact injection in insulator with complicated trap configurations, at low frequencies. Department of Physics, Rani Durgavati Vishwavidyalaya, Jabalpur.

8. Sharma, Satish Jagannath. Ultrasonic propagation studies in polymers. (Dr S Rajagopalan), Department of Physics, Nagpur University, Nagpur.

9. Sarma, Arun Kumar. Study of sheath induced nonlinear phenomena in laboratory plasmas. (Dr Joyanti Chutia), Department of Physics, Gauhati University, Guwahati.

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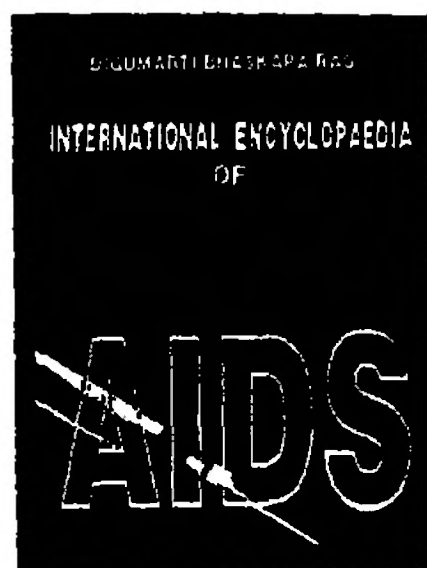
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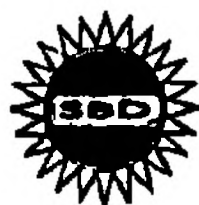
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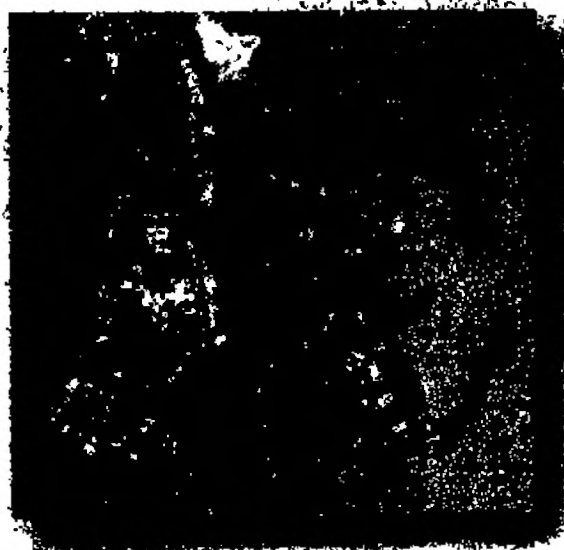
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